



# TZ Chiller series

Screw inverter chiller



High efficiency chiller for comfort  
and process cooling



# 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).



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

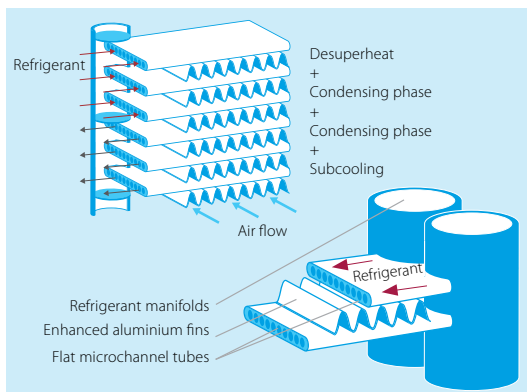
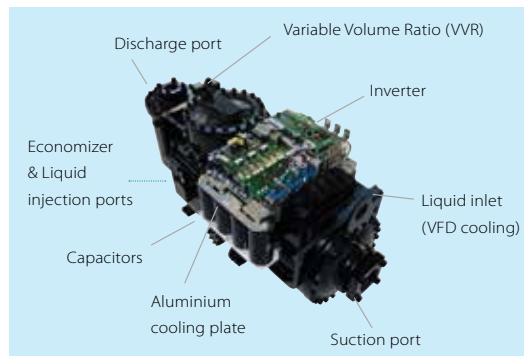
## Best choice for every application

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



### ✓ New generation of Daikin inverter screw compressors

- › Integrated inverter, refrigerant cooled
- › Variable volume ratio technology



### ✓ Microchannel condenser coils

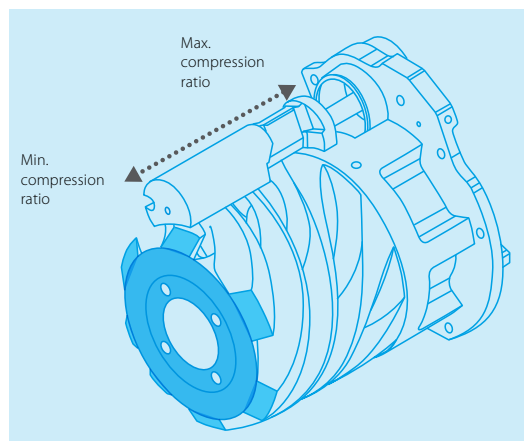
- › High thermal efficiency
- › Small volume, resulting in a small refrigerant charge
- › Light & durable design
- › Easy cleaned

### ✓ 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.

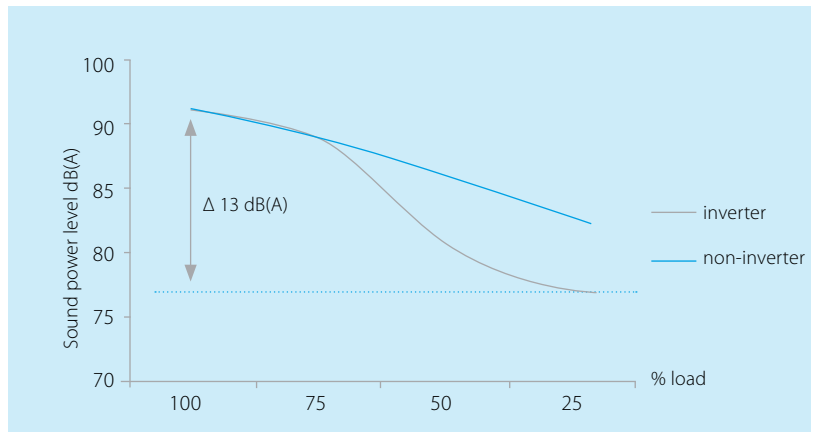




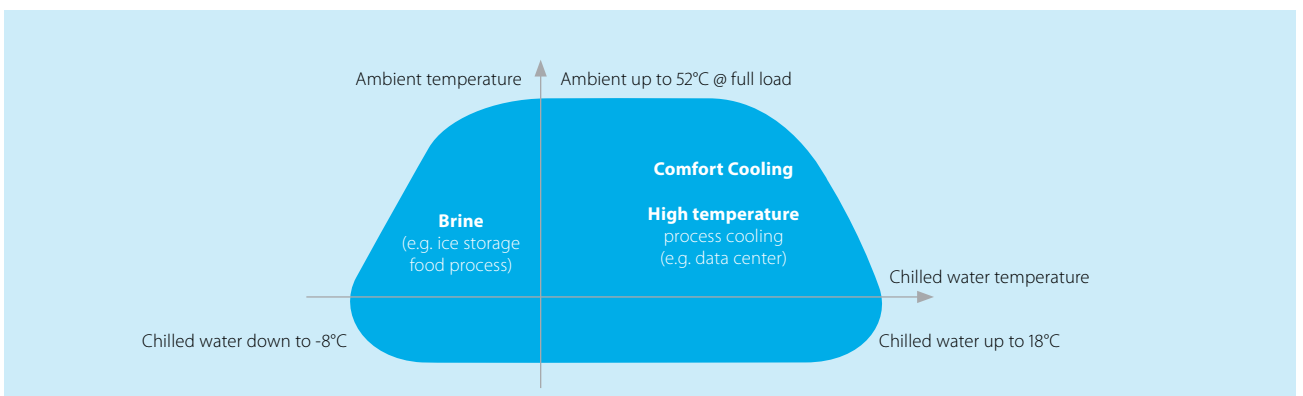
## 2 Silent operation – for distraction-free work

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	Operation weight		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	Operation weight		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	
Sound power level (SSB)	Cooling	Nom.	dB(A)	96				97				98				99				100		101		102		105		102		103			
Sound pressure level (SSB)	Cooling	Nom.	dB(A)	77				78				79				80		82		84		81											
Sound power level (SLB)	Cooling	Nom.	dB(A)	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.	dB(A)	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 <sub>eq</sub>	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	Operation weight		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	
Speed			rpm	700																																					
Sound power level	Cooling	Nom.	dB(A)	86	87		88		90				91		92		94				95																				
Sound pressure level	Cooling	Nom.	dB(A)	67	68				69		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 <sub>eq</sub>	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-TZXS/BLB	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																														
Sound power level (XSB)	Cooling	Nom.	dB(A)	96	97	96	97	98	99				100				101				102													
Sound pressure level (XSB)	Cooling	Nom.	dB(A)	77				78				79				80				79														
Sound power level (XLB)	Cooling	Nom.	dB(A)	91	91.5	91	91.5	92.5	93.5	94				94.5		95		95.5				97												
Sound pressure level (XLB)	Cooling	Nom.	dB(A)	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 <sub>2</sub> eq	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-TZXR/B	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		3.09		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.	dB(A)	88				89				90				91				92				94				95										
Sound pressure level	Cooling	Nom.	dB(A)	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 <sub>2</sub> eq	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
Weight (PSB)	Unit			kg	2758				2769	2770	3020	4735	5069	5077	6470	6498	7415	7708	8037	
					Operation weight		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		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
		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.		dB(A)	97				98	99		100	101							
Sound pressure level (PSB)	Cooling	Nom.		dB(A)	77								78	77	78	79				
Sound power level (PLB)	Cooling	Nom.		dB(A)	91	91.5	91	91.5	92	93.5		94	97							
Sound pressure level (PLB)	Cooling	Nom.		dB(A)	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 <sub>2eq</sub>	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
Weight	Unit			kg	2858				2869	2870	3120	4935	5269	5277	6620	6648	7735	8028	8537
					Operation weight		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
		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.		dB(A)	87	88	87	88		89	90		94	95					
Sound pressure level	Cooling	Nom.		dB(A)	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 <sub>2eq</sub>	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
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)				dBA	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)				dBA	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																			
	Water side	Cooling	Min.~Max.		°CDB																			
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
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																			
	Water side	Cooling	Min.~Max.		°CDB																			
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)**

<b>Cooling Only</b>				<b>EWAH-TZXS/BLB</b>	<b>180</b>	<b>220</b>	<b>270</b>	<b>300</b>	<b>350</b>	<b>390</b>	<b>430</b>	<b>480</b>	<b>580</b>	<b>620</b>	<b>670</b>	<b>710</b>	<b>760</b>	<b>820</b>	<b>930</b>	<b>990</b>	
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.		dB(A)	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)				dB(A)	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.		dB(A)	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)				dB(A)	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																	

<b>Cooling Only</b>				<b>EWAH-TZXR/B</b>	<b>180</b>	<b>220</b>	<b>270</b>	<b>300</b>	<b>350</b>	<b>390</b>	<b>430</b>	<b>480</b>	<b>580</b>	<b>620</b>	<b>670</b>	<b>710</b>	<b>760</b>	<b>820</b>	<b>930</b>	<b>990</b>	
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.		dB(A)	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.		dB(A)	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
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.		dB(A)	100.3	100.8	103.24	104.21	104.24	103.7
Sound power level (PLB)	Cooling	Nom.		dB(A)	95.48	96	98.71	99.63	99.73	98.5
Sound pressure level (PSB)	Cooling	Nom.		dB(A)	78.80		81.80	82.40	82.2	81.10
Sound pressure level (PLB)	Cooling	Nom.		dB(A)	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
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.		dB(A)	92.37	92.94	94.94	95.73	95.97	94.72
Sound pressure level	Cooling	Nom.		dB(A)	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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