

Contents

Water cooled

Cooling only

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Water cooled screw chiller

Standard efficiency

Standard sound

- › 1 or 2 stepless single-screw compressors
- › One or two truly independent refrigerant circuits for outstanding reliability
- › Shell and tube heat exchanger
- › Standard electronic expansion valve
- › Compact design
- › Partial heat recovery available
- › MicroTeK III controller with superior control logic and easy interface

Cooling only				GWWQ-B-SS				380	460	560	640	730	800	860	870	960	C10	C11	C12	C13	C14	C15	C16	C17	C19	C20	
Cooling capacity	Nom.			kW	379	462	560	635	724	793	859	868	956	1,003	1,050	1,181	1,251	1,320	1,452	1,595	1,754	1,896	2,055				
Power input	Cooling	Nom.			kW	89.2	109	133	150	170	179	207	199	218	247	243	268	285	303	337	373	407	441	477			
Capacity control	Method			Stepless																							
	Minimum capacity			%	12.5				25.0		12.5		25.0		12.5		25.0										
EER					4.24	4.21	4.22	4.25	4.42	4.15	4.36	4.38	4.07	4.32	4.41	4.38	4.35	4.31	4.28	4.31	4.30	4.31					
ESEER					4.64	4.69	4.70		4.46	5.08	4.35	5.07	5.03	4.28	5.04	5.05	5.06	5.00	4.66	4.76	4.61	4.63	4.54				
Dimensions	Unit	Height		mm	1,849	2,001		1,848	2,158	1,848	2,158		1,851	2,378	2,455		2,495										
		Width		mm	1,140	1,276	1,314	1,350	1,327	1,350		1,314	1,350														
		Depth		mm	3,373	3,454		3,535	5,020	3,535	5,020		3,535	4,894	5,070		4,892		4,865								
Weight	Unit			kg	1,933	1,967	2,283	2,332	2,407	3,921	2,427	3,949	3,988	2,457	4,344	4,529	4,536	4,607	4,988	4,999	5,053	5,204	5,289				
	Operation weight			kg	2,135	2,169	2,543	2,628	2,777	4,422	2,795	4,463	4,496	2,812	4,780	5,186	5,200	5,280	5,602	5,615	5,670	5,881	5,970				
Water heat exchanger - evaporator	Type			Single pass shell and tube																							
	Water volume			l	124	118	176	170	274	344	266	344	325	251	325	538			505		495	539	527				
	Water flow rate	Nom.		l/s	18.1	22.1	26.8	30.4	34.7	38.0	41.1	41.6	45.8	48.0	50.3	56.5	59.9	63.2	69.5	76.5	84.1	91.0	98.7				
	Water pressure drop	Cooling	Nom.	kPa	48	63	44	47	54	53	49	62	58	56	69	45	49	54	59	69	88	97	120				
Water heat exchanger - condenser	Type			Single pass shell and tube																							
	Water flow rate	Nom.		l/s	22.4	27.4	33.2	37.7	43.1	23.3	51.3	23.3	28.2	60.1	28.2	34.7	34.8	38.9	43.0	43.4	52.0	52.3	60.9				
	Water flow rate 2	Nom.		l/s	-					23.3	-	27.9	28.2	-	33.8	34.7	38.9	43.0	51.3	52.0	60.1	60.9					
	Water pressure drop	Cooling	Nom.	kPa	59	63	67	65	16	64	20	64	67	26	67	73	69	16		17		15					
	Water pressure drop 2	Cooling	Nom.	kPa	-					64	-	66	67	-	69	73	69	16		19	17	14	15				
Compressor	Type			Single screw compressor																							
	Quantity			1								2	1	2	1	2											
Sound power level	Cooling	Nom.		dB(A)	100	101	102		105		102	105		103	105	107			106		107		108				
Sound pressure level	Cooling	Nom.		dB(A)	82	83	84		83	84	85				86		87			86		87	88				
Operation range	Evaporator	Cooling	Min.~Max.	°CDB	-4~-10																						
	Condenser	Cooling	Min.~Max.	°CDB	25~45																						
Refrigerant	Type / GWP			R-410A / 2,087.5																							
	Circuits	Quantity		1					2	1	2	1	2														
Refrigerant charge	Per circuit	kg/TCO _{Eq}		1200/25015/1000/2080	1750/3653/900/1879	800/1670	650/1774	900/1879	450/939	850/1774	1000/2080	1600/3340	1000/2080	1500/3131	1300/2714			1500/3131	1600/3340	1300/2714							
Piping connections	Evaporator water inlet/outlet	mm		152.4			203.2												254								
	Condenser water inlet/outlet	inch		5		6		5					6				5										
Unit	Maximum starting current	A		455				656	599	656	626	656	663			690		902	954		988						
	Nominal running current (RLA)	Cooling	A	149	175	211	237	269	299	329	325	352	391	387	423	449	476	539	596	650	702	755					
	Maximum running current	A		179	214	259	294	308	358	372	393	427	434	473	519	553	587	615	679	744	771	830					
Power supply	Phase/Frequency/Voltage	Hz/V		3~/50/400																							

Water cooled screw chiller

High efficiency

Standard sound



GWWQ-B-5S/XS

MicroTeK III

Cooling only				GWWQ-B-XS				420	520	640	730	800	970	C10	C11	C12	C13	C14	C15	C16	C17	C19	C20	C21	
Cooling capacity	Nom.			kW	420	513	636	722	798	969	1,033	1,111	1,153	1,265	1,363	1,442	1,580	1,740	1,870	2,025	2,156				
Power input	Cooling	Nom.			kW	88.7	107	131	149	166	201	213	239	238	262	281	299	324	361	397	436	474			
Capacity control	Method			Stepless																					
	Minimum capacity			%	12.5										25.0	12.5	25.0								
EER					4.74	4.79	4.84	4.83	4.81		4.86	4.64	4.85	4.83	4.85	4.83	4.88	4.81	4.71	4.64	4.55				
ESEER					5.27	5.29	5.37	5.36	5.30	5.09	5.56	4.99	5.52		5.65	5.61	5.26	5.18	4.98	4.91	4.75				
Dimensions	Unit	Height		mm	2,001			2,003			2,001	2,454	2,003	2,454				2,495							
		Width		mm	1,276			1,268			1,314	1,446	1,350	1,446	1,350										
		Depth		mm	3,863			3,878			3,920	5,219	3,919	5,219				4,829				4,865			
Weight	Unit			kg	2,322	2,403	2,464	2,738	2,407	2,427	4,775	2,457	4,831	4,873	4,919	4,969	5,117		5,388	5,408	5,414				
	Operation weight			kg	2,594	2,685	2,745	3,158	2,815	3,056	5,431	3,086	5,479	5,512	5,546	5,606	5,794	5,843	6,110	6,118	6,124				
Water heat exchanger - evaporator	Type			Single pass shell and tube																					
	Water volume			l	220	213	200	334	325	538	587	538	575	563	551		495	484	535	527					
	Water flow rate	Nom.		l/s	20.1	24.6	30.5	34.6	38.2	46.4	49.5	53.2	55.2	60.6	65.3	69.1	75.7	83.5	89.7	97.2	103.6				
	Water pressure drop	Cooling	Nom.	kPa	55	68	71	64	57	53		68	64	55	67	74	69	88	90	111	124				
Water heat exchanger - condenser	Type			Single pass shell and tube																					
	Water flow rate	Nom.		l/s	24.4	29.8	36.8	41.8	46.3	56.2	29.9	64.7	30.2	36.7	37.2	41.8	45.7	46.2	54.4	55.1	63.1				
	Water flow rate 2	Nom.		l/s						-					29.9	-	36.6	36.7	41.8		45.7	54.7	54.4	63.0	63.1
	Water pressure drop	Cooling	Nom.	kPa	50	39	42	47	59	64	40	82	36	48	49	46	44	45	60	61	78				
	Water pressure drop 2	Cooling	Nom.	kPa						-					40	-	47	48	46		44	60	78		
Compressor	Type			Single screw compressor																					
	Quantity			1								2		1	2										
Sound power level	Cooling	Nom.	dBA	101	102	103		102	103	105	104	106		107		106		107		108					
Sound pressure level	Cooling	Nom.	dBA	82	83	84		83	84	86	85	86	87		86		87		88						
Operation range	Evaporator	Cooling	Min.--Max.	°CDB	-4~-10																				
	Condenser	Cooling	Min.--Max.	°CDB	25~45																				
Refrigerant	Type / GWP			R-410A / 2,087.5																					
	Circuits	Quantity		1								2		1	2										
Refrigerant charge	Per circuit	kg/TCO _{Eq}		120.0 / 250.5	130.0 / 271.4	95.0 / 198.3	155.0 / 281.8	110.0 / 229.6	150.0 / 313.1	120.0 / 250.5	130.0 / 271.4	120.0 / 250.5	150.0 / 313.1	120.0 / 250.5	150.0 / 313.1	130.0 / 271.4		150.0 / 313.1							
Piping connections	Evaporator water inlet/outlet	mm		152.4				203.2		254	203.2	254	203.2				254								
	Condenser water inlet/outlet	inch		8				6		5	6	5	5				6				8				
Unit	Maximum starting current	A		455				656		626	656	663	690		902	954		988	998						
	Nominal running current (RLA)	Cooling	A	149	173	208	235	258	313	346	370	381	417	443	469	511	567	621	678	734					
	Maximum running current	A		179	214	259	294	308	372	427	434	473	519	553	587	615	679	744	771	830					
Power supply	Phase/Frequency/Voltage	Hz/V		3~/50/400																					

Water cooled scroll heat pump

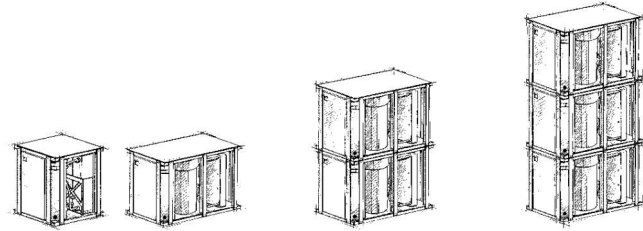
- › One of the most compact units on the market: 600mm x 600mm x 600mm
- › Low energy consumption
- › Low operating sound level
- › Low refrigerant volume
- › Stainless steel plate heat exchanger
- › Extension possible to 195kW
- › Easy installation and maintenance
- › Remote cooling or heating selection
- › Water/water heat pump, with water reversibility
- › Compatible with hydraulic module GHMC
- › Advanced μC^2SE controller for direct connection to a Modbus based BMS or to a remote user interface
- › Standard integrated: main switch, water filter, flow switch, air purge, pressure ports
- › Advanced pCO³ controller for assembly of 2 or 3 modules



Heating only & Cooling only				GWWP-KBW1N		014	022	028	035	045	055	065	090	100	110	120	130	145	155	165	175	185	195																																														
Cooling capacity	Nom.				kW	12.9	21.4	27.8	32.3	42.8	55.7	64.7	85.7	98.6	112.0	121.0	130.0	141.0	154.0	167.0	176.0	185.0	194.0																																														
Heating capacity	Nom.				kW	16.7	27.5	35.6	41.5	55.0	71.7	83.0	110.0	127.0	143.0	155.0	166.0	182.0	198.0	215.0	226.0	237.0	249.0																																														
Power input	Cooling	Nom.			kW	3.8	6.1	7.8	9.1	12.2	16.0	18.2	24.2	28.0	31.9	34.0	36.2	40.2	43.9	47.7	49.8	52.0	54.1																																														
	Heating	Nom.			kW	3.8	6.1	7.8	9.1	12.2	16.0	18.2	24.2	28.0	31.9	34.0	36.2	40.2	43.9	47.7	49.8	52.0	54.1																																														
EER						3.44	3.49	3.54		3.51	3.48	3.55	3.54	3.52	3.51	3.56	3.59	3.51		3.50	3.53	3.56	3.59																																														
COP						4.45	4.49	4.54	4.55	4.51	4.48	4.56	4.55	4.54	4.48	4.56	4.59	4.53		4.51	4.54	4.56	4.60																																														
 Space heating	Average climate water outlet 55°C	General	η _s (Seasonal space heating efficiency)	%		107	106	115	116	102	109	113											-																																														
			SCOP		2.88	2.86	3.08	3.11	2.75	2.91	3.03											-																																															
			Seasonal space heating eff. class	A+																	-																																																
	Average climate water outlet 35°C	General	η _s (Seasonal space heating efficiency)	%		132	134	138	143	136	139	142											-																																														
			SCOP		3.49	3.55	3.66	3.78	3.59	3.66	3.74											-																																															
			Seasonal space heating eff. class	A+																	-																																																
Dimensions	Unit	Height	mm	600								1,200					1,800																																																				
		Width	mm									600																																																									
		Depth	mm	600				1,200																																																													
Weight	Unit				kg	118	155	165	172	300	320	334	600	620	640	654	668	920	940	960	974	988	1,000																																														
Water heat exchanger - evaporator	Type					Braze plate																																																															
	Minimum water volume in the system			l	62	103	134	155	205	268	311	205	268		311		205		268		311																																																
	Water flow rate	Min.	l/min	31.0	53.0	65.0	76.0	101	131	152	202	232	262	283	304	333	363	393	414	435	456																																																
		Nom.	l/min	37.0	61.0	80.0	93.0	123	160	185	246	283	321	347	373	404	441	479	505	530	556																																																
Water heat exchanger - condenser	Type					Braze plate																																																															
	Water flow rate	Min.	l/min	24	39	51	59	79	100	120	160	180	210	220	240	260	280	310	320	340	360																																																
		Nom.	l/min	48	78	100	120	160	210	240	310	360	410	440	470	520	570	610	650	680	710																																																
		Max.	l/min	95	160	200	240	310	410	470	630	720	820	880	950	1,000	1,100	1,200	1,300	1,400																																																	
Compressor	Type					Hermetically sealed scroll compressor																																																															
	Quantity					1			2			4			2			4			6																																																
Compressor 2	Quantity								-			2			-			2			-																																																
Sound power level	Cooling	Nom.			dBA	64.0		71.0		67.0		74.0		71.0		75.0		77.0		73.0		79.0																																															
Operation range	Evaporator	Cooling	Min.~Max.	°CDB	-10~20																																																																
	Condenser	Cooling	Min.~Max.	°CDB																																																																	
Refrigerant	Type / GWP					R-407C / 1,773.9																																																															
	Control					Thermostatic expansion valve																																																															
	Circuits	Quantity				1			2			4			6																																																						
Refrigerant charge	Per circuit				kg/TCO ₂ Eq	1.20/2.13/2.00/3.55/2.50/4.43/3.10/5.50	4.60/8.16			5.60/9.93			9.20/16.3			10.2/18.1/11.2/19.9			13.8/24.5			14.8/26.3/15.8/28.0/16.8/29.8																																															
Piping connections	Evaporator water inlet/outlet (OD)					FBSP 25mm				FBSP 40mm				2 x 2 x FBSP 38mm				3 x 2 x FBSP 38mm																																																			
	Evaporator water drain					Field installation																																																															
	Condenser water inlet/outlet (OD)					FBSP 25mm				FBSP 40mm				2 x 2 x FBSP 38mm				3 x 2 x FBSP 38mm																																																			
Unit	Starting current	Max		A						-					121					155					163					185					189					183					191					199					221					225					229				
		Cooling	Nom.	A	66.0	104	131	15.0	208	262	30.0	416	47.0	524	562	60.0	678	732	786	824	862	90.0																																															
	Max		A	9.00	145	185	22.0	28.0	36.0	40.0	56.0	64.0	72.0	76.0	80.0	92.0	100	108	112	116	120																																																
Power supply	Phase/Frequency/Voltage				Hz/V	3N~/50/400																																																															

Water cooled scroll chiller

Combination table



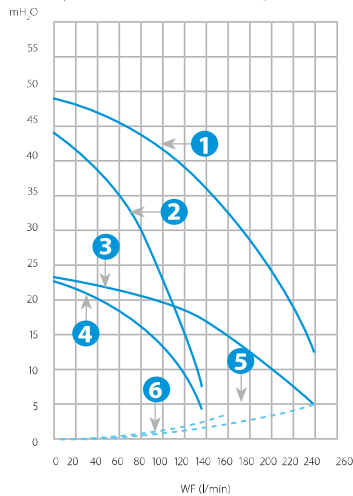
Selection table		1 Module (KB-series)							2 Modules (KB-series)					3 Modules (KB-series)					
Capacity index		014	022	028	035	045	055	065	090	100	110	120	130	145	155	165	175	185	195
Cooling capacity (kW)		12.9	21.4	27.8	32.3	42.8	55.7	64.7	85.7	98.6	112	121	130	141	154	167	176	185	194
Heating capacity (kW)		16.7	27.5	35.6	41.5	55.0	71.7	83.0	110	127	143	155	166	182	198	215	226	237	249
Unit + Control (Factory mounted)	GWWP014KBW1N	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	GWWP022KBW1N	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	GWWP028KBW1N	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	GWWP035KBW1N	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	GWWP045KBW1N	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
	GWWP055KBW1N	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Modular units (Controller available as accessory)	GWWP065KBW1N	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
	GWWP045KAW1M	-	-	-	-	-	-	-	2	1	-	-	-	2	1	-	-	-	-
	GWWP055KAW1M	-	-	-	-	-	-	-	-	1	2	1	-	1	2	3	2	1	-
	GWWP065KAW1M	-	-	-	-	-	-	-	-	-	-	1	2	-	-	-	1	2	3
Control (Kit)	GCB2MUAW	-	-	-	-	-	-	-	1	1	1	1	1	-	-	-	-	-	-
	GCB3MUAW	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1

For example: for a 121 kW HP system, select : GWWP055KBW1N + GWWP065KBW1N

EHMC

Hydraulic Module

- › Accessory for GWWP-KBW1N chillers
- › 3 models available
- › 100 litre tank for all sizes
- › Freeze up protection
- › High static pump (option)
- › Standard drain kit (for indoor use)
- › Standard dual pressure ports (Pump suction and discharge)



Legends

Pump characteristics

1. GHMC30AV1080

2. GHMC10AV1080 & GHMC15AV1080

3. GHMC30AV1010

4. GHMC10AV1010 & GHMC15AV1010

Hydraulic module

+ filter pressures losses

5. GHMC15/30AV1010 & GHMC15/30AV1080

6. GHMC10AV1010 & GHMC10AV1080



EHMC-AV

GHMC-AV			10		15		30	
			1010	1080	1010	1080	1010	1080
Nominal flow		l/min	62		88		187	
Nominal ESP		mH ₂ O	17	34	15	27	10	27
Nominal input		W	630	1,050	650	1,070	1,070	2,090
Dimensions (HxWxD)		mm	1,284x635x688		1,284x635x688		1,284x635x688	
Machine weight		kg	99	101	102	104	105	111
Sound power		dBA	63		63		63	
Sound pressure		dBA	52		52		52	
Power supply		V1	1~/230V/50Hz					
Operation range	Water side	°C	-10°C ~ 55°C					
	Air side	°CDB	-10°C ~ 43°C					
Piping connections	Water inlet/outlet		1" BSPF		2" BSPF		2-1/2" BSPF	
	Drain connection		1/2"					

Water cooled screw chiller

Standard efficiency

Standard sound

- › Stepless single-screw compressor
- › 1-2 truly independent refrigerant circuits
- › Standard electronic expansion valve
- › DX shell and tube evaporator – one pass refrigerant side for easy oil circulation and return
- › Partial and total heat recovery option available
- › MicroTeK III controller with superior control logic and easy interface

Heating only & Cooling only				GWWD-G-SS		170	210	260	300	320	380	420	460	500	600
Cooling capacity	Nom.			kW		165	200	252	279	332	370	401	446	492	554
Heating capacity	Nom.			kW		209	253	319	357	420	467	506	566	626	710
Power input	Cooling	Nom.		kW		43.8	52.6	67.4	78.5	87.5	96.4	105	119	134	157
	Heating	Nom.		kW		43.8	52.6	67.4	78.5	87.5	96.4	105	119	134	157
Capacity control	Method					Stepless									
	Minimum capacity			%		25.0				12.5					
EER						3.77	3.80	3.74	3.55	3.80	3.84	3.80	3.74	3.68	3.53
ESEER						4.50	4.54	4.46	4.25	4.75	4.80	4.76	4.67	4.59	4.44
COP						4.77	4.80	4.74	4.55	4.80	4.84	4.80	4.74	4.68	4.53
 Space heating	Average climate water outlet 35°C	General	ηs (Seasonal space heating efficiency)	%	165	164		159	-						
					4.20	4.17	4.18	4.06	-						
Dimensions	Unit	Height	mm		1,860				1,880						
		Width	mm		920				860						
		Depth	mm		3,435				4,305						
Weight	Unit				kg	1,393	1,410	1,503		2,687	2,697	2,702	2,757	2,762	
	Operation weight			kg	1,470	1,480	1,650		2,840	2,850	2,860	2,970			
Water heat exchanger - evaporator	Type					Single pass shell and tube									
	Water volume		l		60	56	123		118		113		173	168	
	Water flow rate	Nom.		l/s	7.9	9.6	12.1	13.4	15.9	17.7	19.2	21.4	23.6	26.5	
	Water pressure drop	Cooling	Total	kPa	45	61	41	49	58	57	66	50		59	
Water heat exchanger - condenser	Type					Single pass shell and tube									
	Water flow rate	Nom.		l/s	10.0	12.1	15.3	17.1	10.1	10.2	12.2	12.4	15.0	17.0	
	Water flow rate 2	Nom.		l/s	-			10.1	12.2		14.8	15.0	17.0		
	Water pressure drop	Cooling	Nom.	kPa	38	39	60	73	37	38	39	41	57	70	
	Water pressure drop 2	Cooling	Nom.	kPa	-				37	39		56	57	70	
Compressor	Type					Single screw compressor									
	Quantity			1				2							
Sound power level	Cooling	Nom.		dBA	88				90						
Sound pressure level	Cooling	Nom.		dBA	70				72						
Operation range	Evaporator	Cooling	Min.~Max.	°CDB	-8~15										
	Condenser	Cooling	Min.~Max.	°CDB	20~55										
Refrigerant	Type / GWP					R-134a / 1,430									
	Circuits	Quantity			1				2						
Refrigerant charge	Per circuit	kg/TCO _{Eq}			60.0 / 85.8				55.0 / 78.7						
Piping connections	Evaporator water inlet/outlet (OD)				88.9		114.3					139.7mm			
	Condenser water inlet/outlet (OD)				5"										
Unit	Starting current	Max		A	288				380	397		420		438	
	Running current	Cooling	Nom.	A	75	85	105	122	149	160	171	190	209	242	
		Max		A	114	136	165	186	229	250	272	301	330	373	
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400										

Water cooled screw chiller

High efficiency

Standard sound



Heating only & Cooling only				GWWD-G-XS	190	230	280	320	380	400	460	500	550	650	
Cooling capacity	Nom.			kW	185	222	276	306	365	407	443	495	539	602	
Heating capacity	Nom.			kW	226	272	337	379	446	496	540	602	657	743	
Power input	Cooling	Min.		kW	40.6	49.4	61.0	73.4	81.1	89.0	97.0	107	117	141	
	Heating	Nom.		kW	40.6	49.4	61.0	73.4	81.1	89.0	97.0	107	117	141	
Capacity control	Method				Stepless										
	Minimum capacity			%	25.0				12.5						
EER					4.57	4.50	4.53	4.17	4.50	4.58	4.57	4.61	4.59	4.26	
ESEER					5.37	5.31	5.33	4.91	5.54	5.62	5.61	5.68	5.67	5.27	
COP					5.57	5.50	5.53	5.17	5.50	5.58	5.6	5.61	5.59	5.26	
 Space heating	Average climate water outlet 35°C	General	ηs (Seasonal space heating efficiency)	%	187	184	185	175	-						
			SCOP						4.75	4.68	4.69	4.44	-		
			Dimensions	Unit	Height	mm	1,860				1,880				
		Width	mm	920				860							
		Depth	mm	3,435				4,305							
Weight	Unit			kg	1,650	1,665	1,680		2,800	2,945	2,955	2,975	2,990		
	Operation weight			kg	1,800	1,810	1,820		3,020	3,280	3,290	3,315	3,340		
Water heat exchanger - evaporator	Type				Single pass shell and tube										
	Water volume			l	125	120	110		170		285		280		
	Water flow rate	Nom.		l/s	8.9	10.6	13.2	14.6	17.5	19.5	21.2	23.7	25.8	28.8	
Water heat exchanger - condenser	Water pressure drop	Cooling	Total	kPa	23	31	30	37	28	21	24	33	39	47	
	Type				Single pass shell and tube										
	Water flow rate	Nom.		l/s	10.9	13.1	16.2	18.2	10.7	10.9	13.0	13.2	15.8	17.9	
	Water flow rate 2	Nom.		l/s	-				10.7	13.0		15.8			
	Water pressure drop	Cooling	Nom.	kPa	16	18	22	27	15			14		17	
	Water pressure drop 2	Cooling	Nom.	kPa	-				15			14		17	
Compressor	Type				Single screw compressor										
	Quantity				1				2						
Sound power level	Cooling	Nom.		dB(A)	88				90						
Sound pressure level	Cooling	Nom.		dB(A)	70				72						
Operation range	Evaporator	Cooling	Min.~Max.	°CDB	-8~15										
	Condenser	Cooling	Min.~Max.	°CDB	20~55										
Refrigerant	Type / GWP				R-134a / 1,430										
	Circuits	Quantity			1				2						
Refrigerant charge	Per circuit		kg/TCO ₂ Eq		60.0 / 85.8			65.0 / 93.0		60.0 / 85.8	65.0 / 93.0	60.0 / 85.8			
Piping connections	Evaporator water inlet/outlet (OD)				114.3				139.7		168.3mm				
	Condenser water inlet/outlet (OD)				5"										
Unit	Starting current	Max		A	288				380		397		420		438
	Running current	Cooling	Nom.	A	71	81	96	109	142	152	161	174	186	210	
		Max		A	114	136	165	186	229	250	272	301	330	373	
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400										

Water cooled multi-scroll heat pump reversing on refrigerant side

Standard efficiency

Standard sound

- › Single refrigerant circuit (2 scroll compressors) with single evaporator
- › Heat pump version with reversibility on refrigerant side available, ideal for geothermal applications
- › Compact design to allow easy indoor installation or retrofit operations
- › Designed for stacked installation of two single circuit units to reduce the footprint
- › High efficiency and reliable scroll compressor
- › High flexibility for a wide variety of applications
- › Allows sequencing control (up to 4 units) without any external device
- › Stainless steel plate heat exchanger
- › Pump (low 100 kPa and high 200 kPa head) available for evaporator and condenser



GWHQ-G-SS

Heating & Cooling				GWHQ-G-SS				100	120	130	150	160	190	210	240	270	340	400
Cooling capacity	Nom.			kW	87.3	100.0	111	127	141	160	181	208	232	291	352			
Heating capacity	Nom.			kW	112	128	144	162	179	205	233	266	299	375	454			
Power input	Cooling	Nom.		kW	22.4	25.3	28.5	32.0	35.6	41.1	46.0	53.3	59.1	73.7	88.4			
	Heating	Nom.		kW	27.0	30.9	35.2	39.3	43.6	50.4	56.6	64.7	72.2	90.3	109			
Capacity control	Method				Step													
	Minimum capacity			%	50.0	43.0	50.0	44.0	50.0	45.0	50.0	43.0	50.0	40.0	50.0			
EER					3.90	3.95	3.91	3.96	3.95	3.90	3.93	3.90	3.92	3.95	3.98			
ESEER					4.70	4.84	4.65	4.86	4.80	4.89	4.86	4.83	4.79	4.90	4.83			
COP					4.15	4.16	4.09	4.12	4.11	4.07	4.11	4.10	4.14	4.16	4.18			
 Space heating	Average climate water outlet 35°C	General	ns (Seasonal space heating efficiency)	%	160		163	167	166			172		171	163	-		
	SCOP				4.08		4.14	4.24	4.23		4.22	4.37	4.35	4.16	-			
Dimensions	Unit	Height		mm	1,066													
		Width		mm	928													
		Depth		mm	2,432		2,264			2,432								
Weight	Unit			kg	519	608	728	770	808	838	880	930	941	1,090	1,203			
	Operation weight			kg	558	654	782	830	873	908	995	1,019	1,031	1,202	1,334			
Water heat exchanger - evaporator	Type	Plate heat exchanger																
	Water volume			l	6	8		10	12	13	15	17			27	34		
	Water flow rate	Cooling	Nom.	l/s	4.2	4.8	5.3	6.1	6.7	7.7	8.7	10.0	11.1	13.9	16.9			
		Heating	Nom.	l/s	4.1	4.7	5.2	5.9	6.5	7.4	8.5	9.6	10.9	13.7	16.6			
	Water pressure drop	Cooling	Nom.	kPa	44		35	30	29	31	33	31	38	42	43			
		Heating	Nom.	kPa	42		33	28	27	29	32	29	37	41	42			
Water heat exchanger - condenser	Type	Plate heat exchanger																
	Water volume			l	6	8		10	12	13	15	17			27	34		
	Water flow rate	Cooling	Nom.	l/s	5.2	6.0	6.7	7.7	8.5	9.7	10.9	13.7	13.9	17.4	21.1			
		Heating	Nom.	l/s	5.4	6.2	7.0	7.8	8.7	9.9	11.2	12.5	14.3	18.0	21.8			
	Water pressure drop	Cooling	Nom.	kPa	69		55	49	48	51	54	32	39	66	69			
Heating		Nom.	kPa	73		59	51	50	53	57	33	42	70	73				
Compressor	Type	Scroll compressor																
	Quantity	2																
Sound power level	Cooling	Nom.		dBA	80	83	85	87	88			90	92	93				
Sound pressure level	Cooling	Nom.		dBA	64	67	69	70	72			74	76		77			
Operation range	Evaporator	Cooling	Min.~Max.	°CDB	-8~15													
	Condenser	Cooling	Min.~Max.	°CDB	25~55													
Refrigerant	Type / GWP	R-410A / 2,087.5																
	Circuits	Quantity	1															
Refrigerant charge	Per circuit			kg/TCO ₂ Eq	9.0 / 18.8		10.0 / 20.9		13.0 / 27.1		11.0 / 23.0		13.0 / 27.1		15.0 / 31.3		19.0 / 39.7	
Piping connections	Evaporator water inlet/outlet (OD)				1" 1/2				2" 1/2				3"					
	Condenser water inlet/outlet (OD)				1" 1/2				2" 1/2				3"					
Unit	Starting current	Max		A	204	255	261	308	316	354	368	466	481	640	677			
	Running current	Cooling	Nom.	A	43	46	50	56	63	71	78	88	97	123	148			
		Max		A	59	66	72	80	88	102	116	131	145	183	221			
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400													

Water cooled multi-scroll chiller

Standard efficiency

Standard sound

- › Single refrigerant circuit (2 scroll compressors) with single evaporator
- › Heat pump version available
- › Compact design to allow easy indoor installation or retrofit operations
- › Designed for stacked installation of two single circuit units to reduce the footprint
- › High efficiency and reliable scroll compressor
- › High flexibility for a wide variety of applications
- › Allows sequencing control (up to 4 units) without any external device
- › Stainless steel plate heat exchanger
- › Pump (low 100 kPa and high 200 kPa head) available for evaporator and condenser



Heating only & Cooling only				GWWQ-G-SS		090	100	120	130	150	170	190	210	240	300	360				
Cooling capacity	Nom.			kW	93.7	106	119	136	150	172	194	221	246	314	370					
Heating capacity	Nom.			kW	118	133	150	169	187	215	244	276	310.00	396	468					
Power input	Cooling	Nom.		kW	21.3	24.0	26.9	30.5	33.9	38.9	43.8	50.7	56.1	70.2	84.0					
	Heating	Nom.		kW	25.7	29.2	32.9	37.2	41.4	47.6	53.7	61.3	68.3	85.6	103					
Capacity control	Method			%	Step															
	Minimum capacity				50.0	43.0	50.0	44.0	50.0	45.0	50.0	43.0	50.0	40.0	50.0					
EER					4.40		4.42	4.46	4.42		4.35		4.39	4.48	4.41					
ESEER					5.51	5.52	5.51	5.53	5.51	5.53	5.52									
COP					4.58	4.56	4.55		4.53	4.52	4.54	4.50	4.54	4.62	4.56					
 Space heating	Average climate water outlet 35°C	General	ηs (Seasonal space heating efficiency)	%	168		170	173			172	169	167	171	-					
					4.28		4.33	4.40	4.39	4.40	4.38	4.29	4.25	4.34	-					
Dimensions	Unit	Height	mm	1,066											1,186					
		Width	mm	928																
		Depth	mm	2,432		2,264			2,432											
Weight	Unit			kg	516	606	728	762	795	832	871	921	934	1,083	1,181					
	Operation weight			kg	555	652	782	821	859	901	946	1,010	1,023	1,195	1,311					
Water heat exchanger - evaporator	Type			Plate heat exchanger																
	Water volume			l	6	8		10	12	13	15	17		27	34					
	Water flow rate	Cooling	Nom.	l/s	4.5	5.1	5.7	6.5	7.2	8.2	9.3	10.6	11.8	15.1	17.7					
		Heating	Nom.	l/s	4.4	5.0	5.6	6.3	7.0	8.0	9.1	10.3	11.6	14.9	17.5					
	Water pressure drop	Cooling	Nom.	kPa	49		39		33		35		37		47					
		Heating	Nom.	kPa	47		38		31		33		35		46					
Water heat exchanger - condenser	Type			Plate heat exchanger																
	Water volume			l	6	8		10	12	13	15	17		27	34					
	Water flow rate	Cooling	Nom.	l/s	5.5	6.2	7.1	8.0	8.9	10.2	11.4	13.0	14.5	18.5	21.8					
		Heating	Nom.	l/s	5.7	6.4	7.3	8.2	9.1	10.4	11.8	13.3	15.0	19.1	22.6					
	Water pressure drop	Cooling	Nom.	kPa	72	73	60	50		52	56	46	57	69	71					
		Heating	Nom.	kPa	76	77	63	52		54	59	48	61	74	76					
Compressor	Type			Scroll compressor																
	Quantity			2																
Sound power level	Cooling	Nom.		dBA	80	83	85	87	88			90	92	93						
Sound pressure level	Cooling	Nom.		dBA	64	67	69	70	72			74	76		77					
Operation range	Evaporator	Cooling	Min.~Max.	°CDB	-10~15															
	Condenser	Cooling	Min.~Max.	°CDB	25~55															
Refrigerant	Type / GWP			R-410A / 2,087.5																
	Circuits			1																
Refrigerant charge	Per circuit			kg/TCO ₂ Eq	10.0 / 20.9		11.0 / 23.0		12.0 / 25.1		15.0 / 31.3		16.0 / 33.4		17.0 / 35.5		19.0 / 39.7		20.0 / 41.8	
Piping connections	Evaporator water inlet/outlet (OD)				1" 1/2				2" 1/2									3"		
	Condenser water inlet/outlet (OD)				1" 1/2				2" 1/2									3"		
Unit	Starting current	Max		A	204	255	261	308	316	354	368	466	481	640	677					
	Running current	Cooling	Nom.	A	42	45	48	54	61	68	76	86	95	118	143					
		Max		A	59	66	72	80	88	102	116	131	145	183	221					
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400															

Water cooled multi-scroll chiller

Standard efficiency

Standard sound

- › Dual refrigerant circuit (4 scroll compressors) with single evaporator
- › Heat pump version available
- › Compact design to allow easy indoor installation or retrofit operations
- › High efficiency and reliable scroll compressor
- › Stainless steel plate heat exchanger
- › High flexibility for a wide variety of applications
- › Allows sequencing control (up to 4 units) without any external device
- › Pump (low 100 kPa and high 200 kPa head) available for evaporator and condenser



Heating only & Cooling only					GWWQ-L-SS	180	205	230	260	290	330	380	430	480	540	600	660	720		
Cooling capacity	Nom.				kW	187	215	244	273	303	345	387	430	476	549	611	663	721		
Heating capacity	Nom.				kW	234	269	305	339	377	430	486	537	601	692	773	843	917		
Power input	Cooling	Nom.			kW	41.7	47.3	53.1	60.2	67.1	77.1	87.0	97.9	110	124	140	154	167		
	Heating	Nom.			kW	50.5	57.5	65.0	73.6	82.0	94.4	107	118	133	150	171	188	204		
Capacity control	Method					Step														
	Minimum capacity				%	25.0	21.0	25.0	22.0	25.0	23.0	25.0	21.0	25.0	22.0	20.0	18.0	25.0		
EER						4.49	4.55	4.60	4.53	4.52	4.47	4.45	4.39	4.34	4.44	4.37	4.31	4.32		
ESEER						5.54		5.52	5.53	5.54	5.53	5.54	5.52	5.51	5.55	5.51		5.52		
COP						4.64	4.67	4.68	4.60		4.56	4.55	4.54	4.51	4.60	4.53	4.48	4.49		
 Space heating	Average climate water outlet 35°C	General	ηs (Seasonal space heating efficiency)	SCOP	%															
						177	176	178	176	177										
						4.08		4.14	4.24	4.23										
Dimensions	Unit	Height					mm										2,090		2,210	
		Width					mm													
		Depth					mm													
Weight	Unit					kg	877	1,062	1,285	1,347	1,439	1,498	1,559	1,673	1,722	1,842	1,926	2,105	2,229	
	Operation weight				kg	957	1,156	1,401	1,469	1,575	1,641	1,723	1,851	1,918	2,044	2,145	2,346	2,405		
Water heat exchanger - evaporator	Type					Plate heat exchanger														
	Water volume				l	35	41	53		65		76		92		115				
	Water flow rate	Cooling	Nom.		l/s	9.0	10.3	11.7	13.0	14.5	16.5	18.5	20.6	22.8	26.3	29.3	31.8	34.6		
		Heating	Nom.		l/s	8.8	10.1	11.5	12.7	14.1	16.1	18.2	20.1	22.4	26.0	28.9	31.4	34.2		
	Water pressure drop	Cooling	Nom.		kPa	28		23	28	25	32		33	40	51	50	59	69		
		Heating	Nom.		kPa	27		22	27	24	31		39	50	48	58	68			
Water heat exchanger - condenser	Type					Plate heat exchanger														
	Water volume				l	19	22	29		35		41		49		62				
	Water flow rate	Cooling	Nom.		l/s	5.5	6.3	7.2	8.1	9.0	10.2	11.4	12.7	14.0	14.5	18.0	17.9	21.3		
		Heating	Nom.		l/s	11.3	13.0	14.8	16.5	18.3	20.9	23.5	25.9	28.9	33.4	37.2	40.5	44.2		
	Water flow rate 2	Cooling	Nom.		l/s	5.5	6.3	7.2	8.1	9.0	10.2	11.4	12.7	14.0	17.8	18.0	21.3			
		Cooling	Nom.		kPa	72	73	61	49	50	51	55	46	57	43	67		68		
	Water pressure drop	Cooling	Nom.		kPa	76	77	64	52		53	59	48	60	70	72	73			
		Heating	Nom.		kPa	72	73	61	49	50	51	55	46	57	66	67	68			
Compressor	Type					Scroll compressor														
	Quantity				4															
Sound power level	Cooling	Nom.			dBA	83	86	88	90	91			93		95			96		
Sound pressure level	Cooling	Nom.			dBA	65	68	70	72	74			73		76		77		78	
Operation range	Evaporator	Cooling	Min.~Max.		°CDB	-10~15														
	Condenser	Cooling	Min.~Max.		°CDB	25~55														
Refrigerant	Type / GWP					R-410A / 2,087.5														
	Circuits	Quantity				2														
Refrigerant charge	Per circuit					kg/TCO ₂ Eq	10.0 / 20.9		11.0 / 23.0		12.0 / 25.1		15.0 / 31.3		16.0 / 33.4		17.0 / 35.5		19.0 / 39.7	20.0 / 41.8
Piping connections	Evaporator water inlet/outlet (OD)					3"														
	Condenser water inlet/outlet (OD)					3"														
Unit	Starting current	Max			A	263	320	333	388	403	456	484	597	626	785	822	860	898		
	Running current	Cooling	Nom.		A	83	89	96	109	121	137	151	171	189	210	236	260	284		
		Max		A	118	131	144	160	175	205	232	262	290	328	366	403	441			
Power supply	Phase/Frequency/Voltage				Hz/V	3~/50/400														



Water cooled screw chiller

Standard efficiency

Standard sound

- › Stepless single-screw compressor
- › **One, two or three** truly independent **refrigerant circuits**
- › Standard electronic expansion valve
- › DX shell and tube evaporator – one pass refrigerant side to minimize pressure drops
- › Partial and total heat recovery option available
- › MicroTech III controller with superior control logic and easy interface

Heating only & Cooling only				GWWD-I-SS		340	400	460	550	650	700	800	850	900	950	C10	C12	C13	C14	C15	C16	C17	C18	
Cooling capacity	Nom.			kW	332	392	458	536	637	703	779	841	907	982	1,024	1,151	1,200	1,270	1,341	1,395	1,449	1,503		
Heating capacity	Nom.			kW	405	481	562	660	783	863	955	1,032	1,112	1,207	1,267	1,412	1,475	1,560	1,648	1,721	1,793	1,866		
Power input	Cooling	Nom.		kW	73.5	88.6	104	124	146	160	176	191	205	225	243	262	275	290	307	325	344	363		
	Heating	Nom.		kW	73.5	88.6	104	124	146	160	176	191	205	225	243	262	275	290	307	325	344	363		
Capacity control	Method				Stepless																			
	Minimum capacity			%	25.0				12.5						8.3									
EER					4.51	4.43	4.39	4.31	4.37	4.38	4.41	4.40	4.42	4.37	4.22	4.40	4.36	4.38	4.37	4.29	4.21	4.14		
ESEER					4.55	4.46	4.44	4.37	4.99	5.18	5.00	5.13	4.92	5.05	4.82	4.96	5.00	4.99	5.00	4.91	4.79			
COP					5.51	5.43	5.39	5.31	5.37	5.38	5.41	5.40	5.42	5.37	5.22	5.40	5.36	5.38	5.37	5.29	5.21	5.14		
Dimensions	Unit	Height		mm	1,821				2,103						2,323									
		Width		mm	1,466				1,350						2,130									
		Depth		mm	3,298				4,116						4,439									
Weight	Unit			kg	2,150	2,160	2,179	2,224	3,909	3,927	3,945	3,971	3,996	4,080	4,092	6,079	6,097	6,136	6,174	6,192	6,210	6,228		
	Operation weight			kg	2,380	2,396	2,410	2,457	4,217	4,228	4,243	4,262	4,288	4,369	4,386	6,628	6,646	6,670	6,699	6,717	6,735	6,761		
Water heat exchanger - evaporator	Type			Single pass shell and tube																				
	Water volume			l	193	183	172	271	263	256	248	241	233	472	504	489	472							
	Water flow rate			Nom.	l/s	15.9	18.8	21.9	25.7	30.5	33.6	37.3	40.3	43.4	47.0	49.0	55.1	57.4	60.8	64.2	66.8	69.4	72.0	
	Water pressure drop			Cooling	Nom.	kPa	37	50	54	62	55	44	57	53	44	54	39	52	55	46	57	62	66	71
				Heating	Nom.	kPa	37	50	54	62	55	44	57	53	44	54	39	52	55	46	57	62	66	71
Water heat exchanger condenser	Type			Single pass shell and tube																				
	Water flow rate			Nom.	l/s	19.5	23.1	27.0	31.7	18.8	19.1	23.0	23.2	26.8	27.2	30.5	22.6	22.9	26.4		29.9			
	Water flow rate 2			Nom.	l/s	-				18.8	22.4	23.0	26.5	26.8	30.8	30.5	22.6	26.1	26.4		29.9			
	Water flow rate 3			Nom.	l/s	-				-				-				22.6	25.6	26.1	26.4	29.9		
	Water pressure drop			Cooling	Nom.	kPa	26	28	30	26	25	25	27	28	26	22	23	24	25	24		23		
				Heating	Nom.	kPa	26	28	30	26	25	26	27	28	26	23	24	25	24		23			
	Water pressure drop 2			Cooling	Nom.	kPa	-				25	26	27	26		23		24	23	24		23		
	Water pressure drop 3			Cooling	Nom.	kPa	-										24				22	23	24	23
Compressor	Type			Single screw compressor																				
	Quantity			1				2						3										
Sound power level	Cooling	Nom.		dBA	94	97				98	99	100				101			103					
Sound pressure level	Cooling	Nom.		dBA	75	76	78				79	80	81				80	81	83					
Operation range	Evaporator	Cooling	Min.~Max.	°CDB	-8~-15																			
	Condenser	Cooling	Min.~Max.	°CDB	20~55																			
Refrigerant	Type / GWP			R-134a / 1,430																				
	Circuits			1				2						3										
Refrigerant charge	Per circuit			kg/TCO,Eq	54.0/77.2	52.0/74.4	60.0/85.8	55.0/78.7	60.0/85.8	75.0/107.3	55.0/78.7	50.0/78.7				52.0/74.4	51.7/73.9	51.3/73.4	51.0/72.9	50.7/72.5	50.3/72.0	58.0/82.9		
Piping connections	Evaporator water inlet/outlet (OD)			168.3mm																				
	Condenser water inlet/outlet (OD)			5"																				
Unit	Maximum starting current			A	330	464				493	627	650	681		703		836	867	898		920	942		
	Nominal running current (RLA)			Cooling	A	119	145	166	196	236	262	288	310	329	355	382	431	450	470	493	520	547	574	
	Maximum running current			A	204	233	271	299	407	436	465	504	542	570	597	698	737	775	814	841	868	896		
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400																			

Water cooled screw chiller

High efficiency

Standard sound



Heating only & Cooling only				GWWD-I-XS		360	440	500	600	750	800	850	950	C10	C11	C12
Cooling capacity	Nom.			kW	360	431	504	570	717	791	863	929	971	1,035	1,130	
Heating capacity	Nom.			kW	435	520	608	697	865	995	1,040	1,122	1,180	1,263	1,380	
Power input	Cooling	Nom.		kW	74.5	89.5	104	127	148	163	178	193	208	228	250	
	Heating	Nom.		kW	74.5	89.5	104	127	148	163	178	193	208	228	250	
Capacity control	Method				Stepless											
	Minimum capacity			%									25.0			
EER					4.83	4.82		4.50	4.85	4.84	4.85	4.81	4.66	4.53	4.51	
ESEER					4.81	4.74	4.70	4.60	5.52	5.68	5.41	5.53	5.31	5.45	5.10	
COP					5.83	5.82		5.50	5.85	5.84	5.85	5.81	5.66	5.53	5.51	
Dimensions	Unit	Height	mm	1,883					2,245							
		Width	mm	1,430					1,350							
		Depth	mm	4,012					4,782							
Weight	Unit			kg	2,594	2,667	2,704		4,964	4,997	5,049	5,073	5,097	5,132		
	Operation weight			kg	2,998	3,078	3,116		5,582	5,615	5,671	5,695	5,729	5,741		
Water heat exchanger - evaporator	Type				Single pass shell and tube											
	Water volume				l	326	317	308		539			528		504	
	Water flow rate	Nom.		l/s	17.3	20.7	24.1	27.3	34.4	37.9	41.3	44.5	46.6	49.5	54.1	
	Water pressure drop	Cooling	Nom.	kPa	64		54	68	58	68	56	64	72	46	52	
Water heat exchanger - condenser	Type	Heating	Nom.	kPa	64		54	68	58	68	56	64	72	46	52	
	Water flow rate	Nom.	l/s	20.9	25.0	29.2	33.4	20.8	21.0	25.0		28.3		33.1		
	Water flow rate 2	Nom.	l/s	-				20.8	24.9	25.0	28.8	28.3	32.3	33.1		
	Water pressure drop	Cooling	Nom.	kPa	48	47	51	66	48		47		50	51	65	
	Water pressure drop 2	Heating	Nom.	kPa	48	47	51	66	48		47	50	65			
Compressor	Type				Single screw compressor											
	Quantity				1					2						
Sound power level	Cooling	Nom.	dBA	94	97				98		99	100				
Sound pressure level	Cooling	Nom.	dBA	75	76	78				79		80	81			
Operation range	Evaporator	Cooling	Min.~Max.	°CDB	-8~15											
	Condenser	Cooling	Min.~Max.	°CDB	20~55											
Refrigerant	Type / GWP				R-134a / 1,430											
	Circuits	Quantity				1				2						
Refrigerant charge	Per circuit			kg/TCO,Eq	100.0 / 143.0	87.0 / 124.4	130.0 / 185.9	105.0 / 150.2	90.0 / 128.7	88.5 / 126.6	87.0 / 124.4	86.0 / 123.0	85.0 / 121.6			
Piping connections	Evaporator water inlet/outlet (OD)				168.3mm				219.1mm							
	Condenser water inlet/outlet (OD)				5"											
Unit	Maximum starting current			A	330	464			493	627	650	681		703		
	Nominal running current (RLA)	Cooling		A	117	144	164	194	235	261	287	307	327	358	388	
	Maximum running current			A	204	233	271	299	407	436	465	504	542	570	597	
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400											

Water cooled screw chiller

Standard efficiency

Standard sound

- › Compact design to allow easy indoor installation or retrofit operations
- › Bitzer semi-hermetic single screw stepless compressor
- › High energy efficiency both at full and part load conditions
- › Chilled water temperatures down to -10°C on standard unit
- › Optimised for use with R-134a
- › MicroTek III controller with superior control logic and easy interface



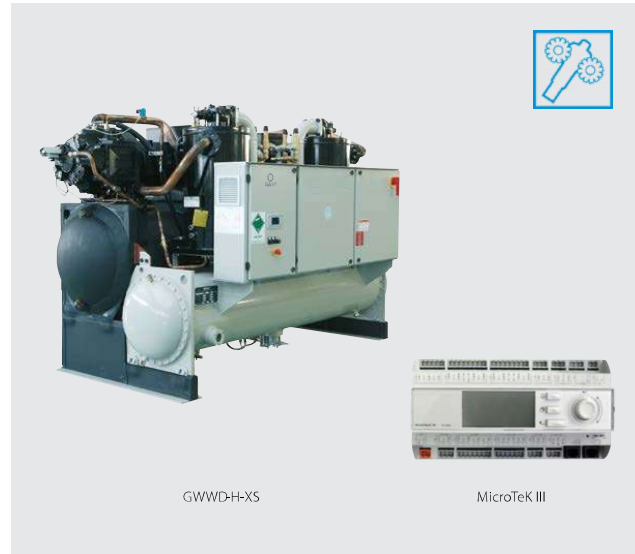
Heating only & Cooling only					GWWD-J-SS		120	140	150	180	210	250	280	310	330	360	380	400	450	500	530	560		
Cooling capacity	Nom.						kW	120	146	154	177	207	255	284	309	333	356	385	415	463	512	540	568	
Heating capacity	Nom.						kW	148	180	194	223	258	315	354	388	417	446	486	515	573	631	669	709	
Power input	Cooling	Nom.					kW	28.0	34.0	39.5	45.3	50.4	59.9	70.0	78.8	84.6	90.3	101	110	120	130	140		
	Heating						kW	28.0	34.0	39.5	45.3	50.4	59.9	70.0	78.8	84.6	90.3	101	110	120	130	140		
Capacity control	Method							Stepless																
	Minimum capacity						%	25.0					12.5											
EER								4.28	4.29	3.90	3.91	4.11	4.26	4.06	3.92	3.94	3.82	4.12	4.20	4.28	4.16	4.05		
ESEER								4.51		4.20		4.28	4.68	4.01	4.32	4.35	4.50	4.31	4.65	4.74	4.83	4.73	4.33	
COP								5.28	5.29	4.90	4.91	5.11	5.26	5.06	4.92	4.94	4.82	5.12	5.20	5.28	5.16	5.05		
Space heating		Average climate water outlet 35°C	General	ηs (Seasonal space heating efficiency)	%																			
Dimensions	Unit		Height		mm	1,020					2,000													
			Width		mm	913																		
			Depth		mm	2,684																		
Weight	Unit				kg	1,177	1,233	1,334	1,366	1,416	1,600	1,607	2,668	2,700	2,732	2,782	2,832	3,016	3,200	3,207	3,215			
	Operation weight				kg	1,211	1,276	1,378	1,415	1,473	1,663	1,675	2,755	2,792	2,830	2,888	2,946	3,136	3,327	3,338	3,350			
Water heat exchanger - evaporator	Type					Plate heat exchanger																		
	Water volume				l	14	18	14	17	20	26	29	31	33	37	41	46		52					
	Water flow rate	Nom.			l/s	5.7	7.0	7.4	8.5	9.9	12.2	13.6	14.8	15.9	17.0	18.4	19.8	22.1	24.5	25.8	27.2			
	Water pressure drop	Cooling	Nom.		kPa	15	14	43	40	35	28	34	43	40	37	35	31	28	31	34				
Water heat exchanger - condenser		Heating	Nom.		kPa	15	14	43	40	35	28	34	43	40	37	35	31	28	31	34				
	Type					Single pass shell and tube																		
	Water volume				l	20	23	25	29	32	45	48	51	54		57		61	64					
	Water flow rate	Nom.			l/s	7.1	8.6	9.3	10.7	12.4	15.2	17.0	9.3	10.7	11.0		12.4	15.2	15.3	17.0				
	Water flow rate 2	Cooling	Nom.		l/s				-				9.3	10.7		12.4		15.2	16.9	17.0				
	Water pressure drop	Cooling	Nom.		kPa	19		12		11	16	26		12			11	16		26				
Compressor		Heating	Nom.		kPa	19		12		11	16	26		12			11		16		26			
	Water pressure drop 2	Cooling	Nom.		kPa				-					12		11		16		26				
	Type					Single screw compressor																		
Sound power level	Quantity					1					2													
	Cooling	Nom.			dBA	89					94													
Sound pressure level	Cooling	Nom.			dBA	79					82													
Operation range	Evaporator	Cooling	Min.~Max.	°CDB	-10~-15																			
	Condenser	Cooling	Min.~Max.	°CDB	23~60																			
Refrigerant	Type / GWP					R-134a / 1,430																		
	Circuits	Quantity				1					2													
Refrigerant charge	Per circuit				kg/TCO _{Eq}	180 / 25.7	350 / 50.1	340 / 48.6	370 / 52.9		380 / 54.3	330 / 47.2	335 / 47.9	340 / 48.6	350 / 50.1	360 / 51.5	370 / 52.9		380 / 54.3					
Piping connections	Evaporator water inlet/outlet				mm	76.2																		
	Condenser water inlet/outlet (OD)					2" 1/2																		
Unit	Starting current	Max			A	151			195		288	281	293		310		403	422		440				
	Running current	Cooling	Nom.		A	48	57	67	74	83	97	109	134	141	149	157	165	180	195	206	218			
		Max			A	76	97	107	122	143	167	189	215	230	245	265	286	311	335	357	378			
Power supply	Phase/Frequency/Voltage				Hz/V	3~/50/400																		

Water cooled screw chiller

High efficiency

Standard sound

- › High energy efficient units: **full range Eurovent Class A**
- › **Heat pump version** available
- › **Flooded type heat exchangers**
- › MicroTeK III controller with superior control logic and easy interface



GWWD-H-XS

MicroTeK III

Heating only & Cooling only				GWWD-H-XS		370	450	530	610	750	830	930	980	C10	C11	C12	
Cooling capacity	Nom.			kW	368	444	520	606	745	825	930	975	1,047	1,130	1,212		
Heating capacity	Nom.			kW	432	520	608	709	873	965	1,083	1,141	1,224	1,321	1,416		
Power input	Cooling	Nom.		kW	65.2	77.8	89.8	104	130	143	156	168	179	193	207		
	Heating	Nom.		kW	64.0	76.7	88.4	103	128	140	154	166	177	191	204		
Capacity control	Method				Stepless												
	Minimum capacity				%	25.0				12.5							
EER						5.64	5.70	5.78	5.81	5.74	5.79	5.95	5.80	5.84		5.85	
ESEER						5.80	5.82	5.90	5.91	6.44	6.51	6.59	6.63	6.66	6.69	6.68	
COP						6.75	6.79	6.88	6.89	6.84	6.87	7.06	6.89	6.93		6.94	
Dimensions	Unit	Height		mm	2,121				2,048				2,161				
		Width		mm	1,353				1,384		1,689		1,711				
		Depth		mm	3,341		3,419		3,417		3,609				3,509		
Weight	Unit			kg	3,089	3,370	3,603	3,781	5,289	5,375	5,654	5,707	6,066	6,105	6,156		
	Operation weight			kg	3,250	3,588	3,870	4,163	5,694	5,835	6,174	6,262	6,709	6,773	6,859		
Water heat exchanger - evaporator	Type	Single pass shell and tube															
	Water volume			l	78	107	134	160	172	201	261	272	295	310	327		
	Water flow rate	Nom.		l/s	17.6	21.2	24.9	29.0	35.7	39.5	44.5	46.7	50.1	54.1	58.0		
	Water pressure drop	Cooling	Nom.	kPa	40	33		40	47	38	35	36	33	32			
Heating		Nom.	kPa	40	33		40	47	38	35	36	33	32				
Water heat exchanger - condenser	Type	Single pass shell and tube															
	Water flow rate	Nom.		l/s	20.8	25.1	29.3	34.2	42.1	46.5	52.2	55.0	59.0	63.7	68.3		
	Water pressure drop	Cooling	Nom.	kPa	31	26	28	23	30	28	33	31	29	30			
		Heating	Nom.	kPa	31	26	28	23	30	28	33	31	29	30			
Compressor	Type	Single screw compressor															
	Quantity				1				2								
Sound power level	Cooling	Nom.		dBA	97	98	99		100	101		102		103			
Sound pressure level	Cooling	Nom.		dBA	78	79	80		81	82		83		84			
Operation range	Evaporator	Cooling	Min.~Max.	°CDB	-8~-15												
	Condenser	Cooling	Min.~Max.	°CDB	18~-60												
Refrigerant	Type / GWP	R-134a / 1,430															
	Circuits	Quantity	1														
Refrigerant charge	Per circuit			kg/TCO _{Eq}	180.0 / 257.4	210.0 / 300.3	230.0 / 328.9	250.0 / 357.5	270.0 / 386.1				300.0 / 429.0		320.0 / 457.6		
Piping connections	Evaporator water inlet/outlet			mm	168.3			219.1									
	Condenser water inlet/outlet			inch	6			8									
Unit	Maximum starting current			A	330			464	448	471		492		626	646		
	Nominal running current (RLA)	Cooling	A	107	124	141	166	213	231	249	266	283	307	330			
	Maximum running current			A	148	176	202	228	296	323	351	378	404	430	456		
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400												

Water cooled centrifugal chiller

High efficiency

Standard sound

- › Totally oil-free operation resulting in reduced maintenance costs and increased reliability
- › An inverter driven compressor allows the capacity to be adjusted precisely to match variations in room and outside temperatures
- › Onboard digital electronics provide smart controls



GWWD-FZXS

MicroTeK II

Cooling only					GWWD-FZXS	320	430	520	640	860	C10	
Cooling capacity	Min.				kW	113	133	170	113	133	169	
	Max.				kW	316	439	520	639	887	1,054	
Power input	Cooling	Min.			kW	20.6	25.5	32.7	20.5	25.5	32.6	
		Max.			kW	65.1	90.4	106	129	179	208	
Capacity control	Method					Stepless						
EER						4.85	4.86	4.93	4.97	4.95	5.06	
ESEER						8.11	8.39	8.66	8.83	8.52	8.88	
Dimensions	Unit	Height			mm	1,823			1,755	1,748	1,794	
		Width			mm	1,276			1,790	1,853	1,904	
		Depth			mm	3,254			3,419	3,441	3,289	3,401
Weight	Unit				kg	2,360	2,416	2,546	3,709	4,095	4,765	
	Operation weight				kg	2,520	2,634	2,812	4,074	4,548	5,330	
Water heat exchanger - evaporator	Type					Flooded shell and tube						
	Water volume				l	78	107	134	184	210	302	
	Water flow rate	Nom.			l/s	15.1	21.0	24.9	30.6	42.4	50.4	
	Water pressure drop	Cooling	Nom.		kPa	30	32	33	35	33	31	
Water heat exchanger - condenser	Type					Flooded shell and tube						
	Water flow rate	Nom.			l/s	18.3	25.5	30.1	36.9	51.3	60.7	
	Water pressure drop	Cooling	Nom.		kPa	24	26	29	23	32	29	
Compressor	Type					Oil free centrifugal compressor						
	Quantity					1			2			
Sound power level	Cooling	Nom.			dB(A)	89	90	91	92	94	95	
Sound pressure level	Cooling	Nom.			dB(A)	71	72	73	74	75	76	
Operation range	Evaporator	Cooling	Min.~Max.		°CDB	2~15						
	Condenser	Cooling	Min.~Max.		°CDB	18~46						
Refrigerant	Type / GWP					R-134a / 1,430						
	Circuits					1						
Refrigerant charge	Per circuit				kg/TCO ₂ Eq	240.0 / 343.2	220.0 / 314.6	180.0 / 257.4	220.0 / 314.6	300.0 / 429.0		
Piping connections	Evaporator water inlet/outlet (OD)					168.3mm			219.1mm		273mm	
	Condenser water inlet/outlet (OD)					168.3mm			219.1mm			
Unit	Maximum starting current					2						
	Nominal running current (RLA)	Cooling			A	104	142	168	207	285	335	
	Maximum running current				A	135	210	176	270	420	352	
Power supply	Phase/Frequency/Voltage					3~/50/400						