

Air cooled multi-scroll chiller

Standard efficiency

Standard sound

- › Single refrigerant circuit (2 scroll compressors) with single evaporator
- › Compact design to allow easy indoor installation or retrofit operations
- › Micro channel heat exchanger technology reduces the amount of refrigerant used in the system, lowering environmental impact
- › Partial and total heat recovery option available
- › Stainless steel plate heat exchanger

Cooling only				GWAQ-G-SS	075	085	100	110	120	140	155	
Cooling capacity	Nom.			kW	74.7	84.2	96.7	107	117	139	154	
Power input	Cooling	Nom.			kW	27.7	31.2	35.0	39.5	43.4	51.1	
Capacity control	Method				Step							
	Minimum capacity			%	50	44	50	44	50	43	50	
EER					2.70		2.76	2.70		2.73	2.70	
ESEER					4.11	4.23	4.04	4.12	3.91	4.20	4.06	
Dimensions	Unit	Height		mm	1,800							
		Width		mm	1,195							
		Depth		mm	2,140	2,680				3,200		
Weight	Unit				kg	681	792	923	953	982	1,037	1,066
	Operation weight				kg	692	802	934	963	993	1,054	1,085
Water heat exchanger	Type				Braze plate							
	Water flow rate	Cooling	Nom.	l/s	3.6	4.0	4.6	5.1	5.6	6.7	7.4	
	Water pressure drop	Cooling	Nom.	kPa	15.5	27.3	36.9	31.6	36.0	27.5	25.8	
	Water volume				l	5.60	4.90		5.60		8.10	9.40
Air heat exchanger	Type				Microchannel							
	Type				Scroll compressor							
	Quantity				2							
Fan	Type				Direct propeller							
	Quantity				4		6				8	
	Air flow rate	Nom.			l/s	6,017	6,444	9,029			12,008	
	Speed			rpm	1,360							
Sound power level	Cooling	Nom.			dBA	83	85	87	89			
Sound pressure level	Cooling	Nom.			dBA	66	68	69	71			
Operation range	Air side	Cooling	Min.~Max.	°CDB	-10~-42							
	Water side	Cooling	Min.~Max.	°CDB	-10~-15							
Refrigerant	Type / GWP				R-410A / 2,087.5							
	Circuits			Quantity	1							
Refrigerant charge	Per circuit			kg/TCO ₂ Eq	8.0 / 16.7		10.0 / 20.9				12.0 / 25.1	
Piping connections	Evaporator water inlet/outlet (OD)				2" 1/2							
Unit	Starting current	Max			A	208	259	266	313	321	361	374
	Running current	Cooling	Nom.	A	54	58	62	70	79	89	102	
	Max			A	64	69	77	84	92	108	122	
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400							

Air cooled multi-scroll chiller

Standard efficiency

Reduced sound



Cooling only				GWAQ-G-SR	075	085	100	110	120	140	155
Cooling capacity	Nom.			kW	69.3	78.9	91.0	99.7	109	130	143
Power input	Cooling	Nom.		kW	29.4	33.1	36.8	42.0	46.3	54.0	61.2
Capacity control	Method							Step			
	Minimum capacity			%	50	44	50	44	50	43	50
EER					2.36	2.38	2.47	2.38	2.35	2.42	2.34
ESEER					3.94	4.12	3.94	4.02	3.74	4.12	3.88
Dimensions	Unit	Height		mm				1,800			
		Width		mm				1,195			
		Depth		mm	2,140		2,680			3,200	
Weight	Unit			kg	711	822	953	983	1,012	1,067	1,096
	Operation weight			kg	722	832	963	993	1,023	1,084	1,115
Water heat exchanger	Type							Brazed plate			
	Water flow rate	Cooling	Nom.	l/s	3.3	3.8	4.4	4.8	5.2	6.2	6.9
	Water pressure drop	Cooling	Nom.	kPa	13.3	24.0	32.6		31.1	24.1	22.2
	Water volume			l	5.58		4.86		5.60	8.10	9.36
Air heat exchanger	Type							Microchannel			
Compressor	Type							Scroll compressor			
	Quantity							2			
Fan	Type							Direct propeller			
	Quantity					4		6		8	
	Air flow rate	Nom.		l/s	4,523	5,046		6,787		9,023	
	Speed			rpm				1,108			
Sound power level	Cooling	Nom.		dBA	79	82	84			86	
Sound pressure level	Cooling	Nom.		dBA	62	65	66			68	
Operation range	Air side	Cooling	Min.~Max.	°CDB				-10~42			
	Water side	Cooling	Min.~Max.	°CDB				-10~15			
Refrigerant	Type / GWP							R-410A / 2,087.5			
	Circuits	Quantity						1			
Refrigerant charge	Per circuit			kg/TCO ₂ Eq	8.0 / 16.7			10.0 / 20.9		12.0 / 25.1	
Piping connections	Evaporator water inlet/outlet (OD)							2" 1/2			
Unit	Starting current	Max		A	207	258	266	313	320	360	374
	Running current	Cooling	Nom.	A	57	61	65	74	84	93	109
		Max		A	63	69	76	84	91	107	121
Power supply	Phase/Frequency/Voltage			Hz/V				3~/50/400			

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High efficiency

Standard sound

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- › Compact design to allow easy indoor installation or retrofit operations
- › Micro channel heat exchanger technology reduces the amount of refrigerant used in the system, lowering environmental impact
- › Partial and total heat recovery option available
- › Stainless steel plate heat exchanger

Cooling only				GWAQ-G-XS	080	090	105	115	130	150
Cooling capacity	Nom.			kW	79.8	90.3	105	117	131	149
Power input	Cooling	Nom.		kW	25.8	29.0	33.8	37.7	42.3	48.1
Capacity control	Method				Step					
	Minimum capacity			%	50	44	50	44	50	43
EER					3.10	3.11	3.12		3.10	
ESEER					4.20	4.30	4.28	4.34	4.22	4.36
Dimensions	Unit	Height		mm	1,800				1,820	
		Width		mm	1,195					
		Depth		mm	2,680	3,200				3,800
Weight	Unit			kg	734	850	991	1,020	1,086	1,123
	Operation weight			kg	744	860	1,007	1,035	1,102	1,144
Water heat exchanger	Type				Braze plate					
	Water flow rate	Cooling	Nom.	l/s	3.8	4.3	5.0	5.6	6.3	7.1
	Water pressure drop	Cooling	Nom.	kPa	25.7	32.7	20.3	19.9	25.4	20.6
	Water volume			l	5.58	4.86		5.60		8.10
Air heat exchanger	Type				Microchannel					
Compressor	Type				Scroll compressor					
	Quantity				2					
Fan	Type				Direct propeller					
	Quantity				6		8		10	
	Air flow rate	Nom.		l/s	9,029	9,498	12,008		15,046	
	Speed			rpm	1,360					
Sound power level	Cooling	Nom.		dBA	84	85	87	89		
Sound pressure level	Cooling	Nom.		dBA	66	68	69	71		
Operation range	Air side	Cooling	Min.~Max.	°CDB	-10~45					
	Water side	Cooling	Min.~Max.	°CDB	-10~15					
Refrigerant	Type / GWP				R-410A / 2,087.5					
	Circuits	Quantity			1					
Refrigerant charge	Per circuit			kg/TCO ₂ Eq	8.0 / 16.7			10.0 / 20.9		12.0 / 25.1
Piping connections	Evaporator water inlet/outlet (OD)				2" 1/2					
Unit	Starting current	Max		A	210	261	268	315	324	362
	Running current	Cooling	Nom.	A	52	56	61	69	76	87
		Max		A	65	71	78	86	96	109
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400					

Air cooled multi-scroll chiller

High efficiency

Reduced sound



Cooling only				GWAQ-G-XR				080	090	105	130	115	150
Cooling capacity	Nom.							kW	76.0	86.0	100	125	141
Power input	Cooling	Nom.						kW	26.4	29.9	34.7	43.3	49.8
Capacity control	Method								Step				
	Minimum capacity							%	50	44	50	44	43
EER									2.88		2.89	2.88	2.83
ESEER									4.18	4.29	4.27	4.21	4.33
Dimensions	Unit	Height						mm	1,800				1,820
		Width						mm					1,195
		Depth						mm	2,680	3,200	3,800	3,200	3,800
Weight	Unit							kg	764	880	1,021	1,116	1,153
	Operation weight							kg	774	890	1,037	1,132	1,174
Water heat exchanger	Type								Braze plate				
	Water flow rate	Cooling	Nom.					l/s	3.6	4.1	4.8	6.0	6.7
	Water pressure drop	Cooling	Nom.					kPa	23.3	29.6	18.4	23.0	18.4
	Water volume							l	5.58	4.86		5.60	8.10
Air heat exchanger	Type								Microchannel				
Compressor	Type								Scroll compressor				
	Quantity								2				
Fan	Type								Direct propeller				
	Quantity								6	8	10	8	10
	Air flow rate	Nom.						l/s	6,787	7,356	9,023	11,309	11,309
	Speed							rpm	1,108				
Sound power level	Cooling	Nom.						dBA	80	82	84	86	
Sound pressure level	Cooling	Nom.						dBA	62	65	66	67	67
Operation range	Air side	Cooling	Min.~Max.					°CDB	-10~45				
	Water side	Cooling	Min.~Max.					°CDB	-10~15				
Refrigerant	Type / GWP								R-410A / 2,087.5				
	Circuits	Quantity							1				
Refrigerant charge	Per circuit							kg/TCO ₂ Eq	8.0 / 16.7		10.0 / 20.9		12.0 / 25.1
Piping connections	Evaporator water inlet/outlet (OD)								2" 1/2				
Unit	Starting current	Max						A	209	260	267	324	362
	Running current	Cooling	Nom.					A	54	58	63	78	90
		Max						A	65	71	78	95	109
Power supply	Phase/Frequency/Voltage							Hz/V	3~/50/400				

Air cooled multi-scroll chiller

High efficiency

Standard/low sound

- › Reliable and efficient scroll compressors with high EER values
- › A series of advantages thanks to the use of large-capacity scroll compressors: increased competitiveness, reduced weight, clearances around the unit
- › **Reduced footprint thanks to the V-shaped frame**
- › Large operation range: ambient temperatures up to 52°C and down to -18°C
- › Ideal solution for **a broad range of comfort and process applications**
- › The unit can be equipped with a hydraulic module optimizing installation time, space and cost
- › MicroTek III controller with superior control logic and easy interface

Cooling only				GWAQ-E-XS/XL	180	200	230	260	320	340
Cooling capacity	Nom.			kW	178	200	226	263	315	334
Power input	Cooling	Nom.		kW	58.0	65.4	73.8	86.2	103	110
Capacity control	Method				Step					
	Minimum capacity			%	50.0	43.0	50.0	33.0	27.0	33.0
EER						3.06			3.05	
ESEER					4.02	4.11	3.91	4.18	4.17	4.14
Dimensions	Unit	Height		mm	2,271				2,447	
		Width		mm	1,224					
		Depth		mm	4,413		5,313		6,213	
Weight (XS)	Unit			kg	1,722	1,807	1,871	2,173	2,304	2,492
	Operation weight			kg	1,734	1,819	1,885	2,188	2,318	2,507
Weight (XL)	Unit			kg	1,876	1,965	2,032	2,370	2,507	2,705
	Operation weight			kg	1,889	1,978	2,047	2,385	2,522	2,719
Water heat exchanger	Type				Plate heat exchanger					
	Water volume			l	12		14			
	Water flow rate	Cooling	Nom.	l/s	8.5	9.6	10.8	12.6	15.1	16.0
	Water pressure drop	Cooling	Nom.	kPa	27	34	35	47		54
Air heat exchanger	Type				High efficiency fin and tube type with integral subcooler					
Compressor	Type				Scroll compressor					
	Quantity				2		3			
Fan	Type				Direct propeller					
	Quantity				4		5		6	
	Air flow rate	Nom.		l/s	21,845	21,148	26,874	25,884	32,953	32,065
	Speed			rpm	900					
Sound power level (XS)	Cooling	Nom.		dBA	93	94	96	95	96	97
Sound power level (XL)	Cooling	Nom.		dBA	91	92	93	92	93	94
Sound pressure level (XS)	Cooling	Nom.		dBA	75	76			77	
Sound pressure level (XL)	Cooling	Nom.		dBA	73				74	
Operation range	Water side	Cooling	Min.~Max.	°CDB	-13~18					
	Air side	Cooling	Min.~Max.	°CDB	-18~52					
Refrigerant	Type / GWP				R-410A / 2,087.5					
	Circuits	Quantity			1					
Refrigerant charge	Per circuit			kg/TCO ₂ Eq	28.0 / 58.5	31.0 / 64.7	34.0 / 71.0	40.0 / 83.5	43.0 / 89.8	53.0 / 110.6
Piping connections	Evaporator water inlet/outlet (OD)				3"					
Unit	Maximum starting current			A	384	482	500	447	563	577
	Nominal running current (RLA)	Cooling		A	103	115	129	151	179	190
	Maximum running current			A	133	147	165	195	227	241
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400					

Air cooled multi-scroll chiller

High efficiency

Reduced sound



GWAQ-E-XS/XL/XR

MicroTeK III

Cooling only				GWAQ-E-XR	170	190	220	260	300	320
Cooling capacity	Nom.			kW	172	190	219	254	302	310
Power input	Cooling	Nom.		kW	56.5	63.6	71.8	85.4	102	107
Capacity control	Method				Step					
	Minimum capacity			%	50.0	43.0	50.0	33.0	27.0	33.0
EER					3.05	2.98	3.05	2.97	2.96	2.89
ESEER					4.45	4.57	4.33	4.65	4.62	4.50
Dimensions	Unit	Height		mm	2,271					
		Width		mm	1,224					
		Depth		mm	4,413		5,313		6,213	
Weight	Unit			kg	1,970	2,064	2,134	2,489	2,632	2,840
	Operation weight			kg	1,982	2,076	2,148	2,503	2,647	2,855
Water heat exchanger	Type				Plate heat exchanger					
	Water volume			l	12		14			
	Water flow rate	Cooling	Nom.	l/s	8.2	9.1	10.5	12.1	14.5	14.8
	Water pressure drop	Cooling	Nom.	kPa	26	39	33	44	43	52
Air heat exchanger	Type				High efficiency fin and tube type with integral subcooler					
Compressor	Type				Scroll compressor					
	Quantity				2		3			
Fan	Type				Direct propeller					
	Quantity				4		5		6	
	Air flow rate	Nom.		l/s	16,743	18,405	20,618	20,056	25,243	28,009
	Speed			rpm	705	784	705		784	
Sound power level	Cooling	Nom.		dBA	85	86	87	86	88	89
Sound pressure level	Cooling	Nom.		dBA	66	67	68	67	68	69
Operation range	Water side	Cooling	Min.~Max.	°CDB	-13~-18					
	Air side	Cooling	Min.~Max.	°CDB	-18~-52					
Refrigerant	Type / GWP				R-410A / 2,087.5					
	Circuits	Quantity			1					
Refrigerant charge	Per circuit			kg/TCO ₂ Eq	28.0 / 58.5	31.0 / 64.7	27.0 / 56.4	35.0 / 73.1	43.0 / 89.8	53.0 / 110.6
Piping connections	Evaporator water inlet/outlet (OD)				3"					
Unit	Maximum starting current			A	379	482	493	440	554	577
	Nominal running current (RLA)	Cooling		A	101	117	127	151	179	193
	Maximum running current			A	127	147	158	188	219	241
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400					

Air cooled multi-scroll chiller

Standard efficiency

Standard/low sound

- › Reliable and efficient scroll compressors with high EER values
- › A series of advantages thanks to the use of large-capacity scroll compressors: increased competitiveness, reduced weight, clearances around the unit
- › **2 truly independent refrigerant circuits**
- › Reduced footprint thanks to the **V-shaped frame** (GWAQ210-350/400F-SS/SL & GWAQ200-330/370F-SR)
- › Large operation range: ambient temperatures up to 52°C and down to -18°C
- › The unit can be equipped with a hydraulic module optimizing installation time, space and cost
- › Ideal solution for a broad range of comfort and process applications
- › MicroTeK III controller with superior control logic and easy interface

Cooling only				GWAQ-F-SS/SL	210	230	250	280	320	350	360	400	410	480	550	610	
Cooling capacity	Nom.			kW	206	224	247	283	313	359		423	407	480	551	609	
Power input	Cooling	Nom.		kW	73.3	84.9	93.6	109	122	141		154		187	207	229	
Capacity control	Method				Step												
	Minimum capacity			%	25.0	22.0	25.0	23.0	25.0	21.0		25.0		17.0	14.0	17.0	
EER					2.81	2.64		2.60	2.58	2.55		2.75	2.64	2.57	2.67	2.66	
ESEER					3.79	3.77	3.81	3.74	3.78	3.73	4.02	3.74	4.04	4.13	4.05	4.08	
Dimensions	Unit	Height		mm	2,271						2,221	2,447	2,397	2,221			
		Width		mm	1,224						2,258	1,224	2,258				
		Depth		mm	4,413			5,313		6,213	3,210	6,213	3,210	4,110	5,010		
Weight (SS)	Unit			kg	2,058		2,130	2,202	2,284	2,409	2,509	2,659	2,759	2,990	3,336	3,558	
	Operation weight			kg	2,070		2,142	2,216	2,298	2,424	2,524	2,699	2,799	3,036	3,382	3,604	
Weight (SL)	Unit			kg	2,297		2,373	2,449	2,535	2,666	2,766	2,968	3,068	3,315	3,679	3,912	
	Operation weight			kg	2,309		2,385	2,463	2,549	2,681	2,781	3,008	3,108	3,362	3,725	3,958	
Water heat exchanger	Type				Plate heat exchanger												
	Water volume			l	12			14				40		46			
	Water flow rate	Cooling	Nom.	l/s	9.9	10.7	11.8	13.6	15.0	17.2		20.3	19.5	23.0	26.4	29.2	
	Water pressure drop	Cooling	Nom.	kPa	37	43	53	56	69	30		27	32	35	46	56	
Air heat exchanger	Type				High efficiency fin and tube type with integral subcooler												
Compressor	Type				Scroll compressor												
	Quantity				4										6		
Fan	Type				Direct propeller												
	Quantity				4			5		6			8		10		
	Air flow rate	Nom.		l/s	21,845		21,148	27,306	26,435	32,767		36,265	32,513	43,690	54,612	52,870	
	Speed			rpm	900						980		900				
Sound power level (SS)	Cooling	Nom.		dBA	93	94	95		97				99				
Sound power level (SL)	Cooling	Nom.		dBA	91	92		93		94				95		96	
Sound pressure level (SS)	Cooling	Nom.		dBA	75			76		77	78				79		
Sound pressure level (SL)	Cooling	Nom.		dBA	73				74	75	74	75			76		
Operation range	Water side	Cooling	Min.~Max.	°CDB	-13~18												
	Air side	Cooling	Min.~Max.	°CDB	-18~52												
Refrigerant	Type / GWP				R-410A / 2,087.5												
	Circuits	Quantity			2												
Refrigerant charge	Per circuit			kg/TCO ₂ Eq	14.0 / 29.2		15.5 / 32.4	16.5 / 34.4	20.0 / 41.8	23.0 / 48.0		27.0 / 56.4		28.0 / 58.5	32.5 / 67.8	40.0 / 83.5	
Piping connections	Evaporator water inlet/outlet (OD)				3"												
Unit	Maximum starting current			A	349	404	419	476	505	621		649		634	768	810	
	Nominal running current (RLA)	Cooling		A	130	147	161	187	208	242		259	262	322	356	391	
	Maximum running current			A	160	176	191	225	254	286		314		383	433	474	
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400												

Air cooled multi-scroll chiller

Standard efficiency

Reduced sound



Cooling only				GWAQ-F-SR	200	220	240	270	300	330	340	370	380	460	530	580	
Cooling capacity	Nom.			kW	198	214	235	270	298	341		383		456	527	580	
Power input	Cooling	Nom.		kW	73.4	86.0	95.6	110	125	144		159		191	208	233	
Capacity control	Method									Step							
	Minimum capacity			%	25.0	22.0	25.0	23.0	25.0	21.0		25.0		17.0	14.0	17.0	
EER					2.70	2.49	2.46	2.45	2.38	2.37		2.41		2.39	2.53	2.49	
ESEER					4.27	4.20	4.13	4.16	4.08	4.10	4.27	4.03	4.16	4.53	4.49	4.43	
Dimensions	Unit	Height		mm	2,271						2,221		2,447	2,397	2,221		
		Width		mm	1,224						2,258		1,224	2,258			
		Depth		mm	4,413				5,313		6,213	3,210	6,213	3,210	4,110	5,010	
Weight	Unit			kg	2,412		2,491	2,571	2,661	2,799	2,899	3,116	3,216	3,481	3,863	4,108	
	Operation weight			kg	2,424		2,504	2,585	2,676	2,814	2,914	3,156	3,256	3,527	3,909	4,154	
Water heat exchanger	Type				Plate heat exchanger												
	Water volume			l	12			14				40			46		
	Water flow rate	Cooling	Nom.	l/s	9.5	10.2	11.3	13.0	14.3	16.3		18.3			21.8	25.2	27.8
	Water pressure drop	Cooling	Nom.	kPa	34	40	48	51	63	27		29			31	42	51
Air heat exchanger	Type				High efficiency fin and tube type with integral subcooler												
Compressor	Type				Scroll compressor												
	Quantity				4												6
Fan	Type				Direct propeller												
	Quantity				4			5		6			8			10	
	Air flow rate	Nom.		l/s	16,743		16,285	20,929	20,356	25,115			24,922		33,487	41,858	40,713
	Speed			rpm	705												
Sound power level	Cooling	Nom.		dBA	85	86	87		89			90		89	91	92	
Sound pressure level	Cooling	Nom.		dBA	66	67	68			69			70	71	70	71	72
Operation range	Water side	Cooling	Min.~Max.	°CDB	-13~18												
	Air side	Cooling	Min.~Max.	°CDB	-18~52												
Refrigerant	Type / GWP				R-410A / 2,087.5												
	Circuits	Quantity			2												
Refrigerant charge	Per circuit			kg/TCO ₂ Eq	16.0 / 33.4		18.0 / 37.6	19.0 / 39.7	20.0 / 41.8	23.0 / 48.0		27.0 / 56.4		28.0 / 58.5	32.5 / 67.8	40.0 / 83.5	
Piping connections	Evaporator water inlet/outlet (OD)				3"												
Unit	Maximum starting current			A	344	398	414	469	498	613		641		623	754	796	
	Nominal running current (RLA)	Cooling		A	129	149	164	189	214	247		270		328	359	398	
	Maximum running current			A	155	170	186	218	247	277		305		372	419	460	
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400												

Air cooled multi-scroll chiller

High efficiency

Standard/low sound

- › Reliable and efficient scroll compressors with **high EER values**
- › A series of advantages thanks to the use of large-capacity scroll compressors: increased competitiveness, reduced weight, clearances around the unit
- › **2 truly independent refrigerant circuits**
- › Reduced footprint thanks to the **V-shaped frame** (GWAQ170 -310/350F-XS/XL & GWAQ170 -300/330F-XR)
- › Large operation range: ambient temperatures up to 52°C and down to -18°C
- › The unit can be equipped with a hydraulic module optimizing installation time, space and cost
- › Ideal solution for a broad range of comfort and process applications
- › MicroTeK III controller with superior control logic and easy interface

Cooling only				GWAQ-F-XS/XL				170	200	220	250	310	320	350	360	400	430	450	520	610	680			
Cooling capacity	Nom.			kW	170	194	220	244				316				356	403	428	457	528	607	672		
Power input	Cooling	Nom.			kW	54.8	62.2	70.6	78.3				102				115	130	137	146	170	198	219	
Capacity control	Method			%	25.0	21.0	25.0	22.0				Step			25.0	21.0	20.0	25.0	17.0	14.0	17.0			
	Minimum capacity								3.11			3.12										3.09		
ESEER					3.90	4.10	3.95	4.08	4.04	4.30	4.05	4.33	4.24	4.27	4.23	4.35	4.30	4.23						
Dimensions	Unit	Height	mm		2,271				2,221		2,271		2,221											
		Width	mm		1,224				2,258		1,224		2,258											
		Depth	mm		4,413		5,313		6,213		3,210		6,213		3,210		4,110				5,010		5,910	
Weight (XS)	Unit	kg		1,688	1,958	2,210	2,339	2,500	2,600	2,632	2,732	2,744	2,845	2,861	3,569	3,667	4,054							
	Operation weight	kg		1,700	1,973	2,225	2,353	2,514		2,672	2,772	2,784	2,891	2,907	3,615	3,727	4,115							
Weight (XL)	Unit	kg		1,909	2,193	2,457	2,592	2,761	2,861	2,900	3,000	3,017	3,124	3,141	3,923	4,026	4,434							
	Operation weight	kg		1,921	2,207	2,472	2,607	2,776	2,876	2,940	3,040	3,057	3,170	3,187	3,970	4,087	4,494							
Water heat exchanger	Type	Plate heat exchanger																						
	Water volume	l		12	14				40				46				60							
	Water flow rate	Cooling	Nom.	l/s	8.2	9.3	10.5	11.7	15.1	17.0		19.3	20.5	21.8	25.3	29.0	32.2							
	Water pressure drop	Cooling	Nom.	kPa	25	27	34	42	22	23		31	29	30	41	44	55							
Air heat exchanger	Type	High efficiency fin and tube type with integral subcooler																						
Compressor	Type	Scroll compressor																						
	Quantity	4														6								
Fan	Type	Direct propeller																						
	Quantity	4				5				6				8				10				12		
	Air flow rate	Nom.	l/s	21,845	21,148	26,874	25,204	31,722		30,245		42,296	40,326		50,408		60,489							
	Speed	rpm		900																				
Sound power level (XS)	Cooling	Nom.	dBA	91	93	94	95	96			97		98			99		100						
Sound power level (XL)	Cooling	Nom.	dBA	90	91	92		93			95			96		97								
Sound pressure level (XS)	Cooling	Nom.	dBA	72	74	75	76		77	76	77	78		79	78	79								
Sound pressure level (XL)	Cooling	Nom.	dBA	71	73			74			75			76										
Operation range	Water side	Cooling	Min.~Max.	°CDB	-13~18																			
	Air side	Cooling	Min.~Max.	°CDB	-18~52																			
Refrigerant	Type / GWP	R-410A / 2,087.5																						
	Circuits	Quantity	2																					
Refrigerant charge	Per circuit	kg/TCO ₂ Eq		140 / 292	155 / 324	165 / 344	200 / 418	260 / 543			310 / 647			370 / 772		360 / 752	415 / 866							
Piping connections	Evaporator water inlet/outlet (OD)	3"																						
Unit	Maximum starting current	A		281	338	353	408	480		509		629	643	657	642	768	818							
	Nominal running current (RLA)	Cooling	A	110	117	128	141	181		202		229	240	254	300	343	379							
	Maximum running current	A		138	149	164	180	229		258		294	308	322	391	433	482							
Power supply	Phase/Frequency/Voltage	Hz/V		3~/50/400																				

Air cooled multi-scroll chiller

High efficiency

Reduced sound



GWAQ-F-XS/XL/XR

MicroTeK III

Cooling only				GWAQ-F-XR	170	190	210	240	300	310	330	340	390	410	430	500	580	650	
Cooling capacity	Nom.			kW	165	188	211	236	304		340		385	407	433	502	579	645	
Power input	Cooling	Nom.		kW	53.0	61.2	68.7	77.3	101		117		128	136	146	170	200	219	
Capacity control	Method																		
	Minimum capacity			%	25.0	21.0	25.0	22.0	23.0		25.0		21.0	20.0	25.0	17.0	14.0	17.0	
EER					3.12	3.07	3.08	3.05	3.00		2.92		3.01	2.99	2.96		2.90	2.95	
ESEER					4.53	4.64	4.51	4.60	4.53	4.68	4.44	4.63	4.68	4.64	4.54	4.82	4.69	4.65	
Dimensions	Unit	Height		mm	2,271				2,221		2,271		2,221						
		Width		mm	1,224				2,258		1,224		2,258						
		Depth		mm	4,413		5,313		6,213		3,210		4,110		5,010		5,910		
Weight	Unit			kg	2,004	2,303	2,580	2,722	2,900	3,000	3,045	3,145	3,168	3,280	3,298	4,120	4,228	4,655	
	Operation weight			kg	2,017	2,317	2,594	2,736	2,914	3,014	3,085	3,185	3,208	3,326	3,344	4,166	4,288	4,716	
Water heat exchanger	Type				Plate heat exchanger														
	Water volume			l	12	14				40				46				60	
	Water flow rate	Cooling	Nom.	l/s	7.9	9.0	10.1	11.3	14.5		16.3		18.4	19.5	20.7	24.0	27.7	30.9	
	Water pressure drop	Cooling	Nom.	kPa	24	25	31	39	21				28		26	27	38	40	51
Air heat exchanger	Type				High efficiency fin and tube type with integral subcooler														
Compressor	Type				Scroll compressor														
	Quantity				4												6		
Fan	Type				Direct propeller														
	Quantity				4		5		6		8		10		12				
	Air flow rate	Nom.		l/s	16,743	16,285	20,618	19,522	24,428		23,426		32,570	31,235		39,044		46,852	
	Speed			rpm	705														
Sound power level	Cooling	Nom.		dBA	83	84	85	86	87				89		90	89	90	92	
Sound pressure level	Cooling	Nom.		dBA	64	65	66	67	68	67	68	69	70		69	70	71		
Operation range	Water side	Cooling	Min.~Max.	°CDB	-13~18														
	Air side	Cooling	Min.~Max.	°CDB	-18~52														
Refrigerant	Type / GWP				R-410A / 2,087.5														
	Circuits	Quantity			2														
Refrigerant charge	Per circuit			kg/TCO ₂ Eq	14.0 / 29.2	15.5 / 32.4	16.5 / 34.4	20.0 / 41.8	24.0 / 50.1	26.0 / 54.3			31.0 / 64.7		35.0 / 73.1		36.0 / 75.2	41.5 / 86.6	
Piping connections	Evaporator water inlet/outlet (OD)				3"														
Unit	Maximum starting current				A	276	332	346	401	472	501		618	632	646	628	754	801	
	Nominal running current (RLA)				A	107	116	125	139	180	204		226	239	255	300	347	380	
	Maximum running current				A	132	143	157	173	220	249		283	296	310	377	419	465	
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400														

Air cooled multi-scroll inverter chiller

High efficiency

Standard sound

- › High efficiency **DC inverter scroll** compressors
- › Advanced compressor and fan design resulting in low operating sound levels
- › Dual independent refrigerant circuit for built-in redundancy and reliable operation
- › Wide operating range in cooling mode
- › Reduced footprint thanks to the **V-shaped frame** (GWAQ210GZXS & GWAQ190GZXR)
- › MicroTeK III controller with superior control logic and easy interface

Cooling only				GWAQ-GZXS	210	270	320	340	400
Cooling capacity	Nom.			kW	201	270	323	340	395
Power input	Cooling	Nom.		kW	72.5	94.0	122	117	144
Capacity control	Method				Stepless				
	Minimum capacity			%	14.4	14.3	14.9	14.3	14.8
EER					2.77	2.87	2.64	2.92	2.75
ESEER					4.79	4.89	4.90	4.77	4.78
Dimensions	Unit	Height		mm	2,270	2,223			
		Width		mm	1,290	2,234			
		Depth		mm	4,450	3,560		4,460	
Weight	Unit			kg	1,600	2,100	2,150	2,400	2,500
	Operation weight			kg	1,677	2,233	2,297	2,575	2,688
Water heat exchanger	Type				Plate heat exchanger				
	Water volume			l	29	61	75	79	92
	Water flow rate	Cooling	Nom.	l/s	9.6	12.9	15.4	16.3	18.9
	Water pressure drop	Cooling	Total	kPa	27	14	15	16	18
Air heat exchanger	Type				High efficiency fin and tube type with integral subcooler				
Compressor	Type				DC Inverter Scroll				
	Quantity				6	8	10		12
Fan	Type				Direct propeller				
	Quantity				4	6		8	
	Air flow rate	Nom.		l/s	17,473	26,209		34,946	
	Speed			rpm	920				
Sound power level	Cooling	Nom.		dBA	92	94		96	
Sound pressure level	Cooling	Nom.		dBA	75		78		79
Operation range	Water side	Cooling	Min.~Max.	°CDB	-8~-20				
	Air side	Cooling	Min.~Max.	°CDB	-18~-43				
Refrigerant	Type / GWP				R-410A / 2,087.5				
	Circuits	Quantity			1		2		
Refrigerant charge	Per circuit			kg/TCO ₂ Eq	48.0 / 100.2	36.0 / 75.2		48.0 / 100.2	
Piping connections	Evaporator water inlet/outlet (OD)				2.5"		4.5"		
Unit	Maximum starting current			A	2				
	Nominal running current (RLA)	Cooling		A	114	155	195	189	227
	Maximum running current			A	155	236	281	286	309
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400				

Air cooled multi-scroll inverter chiller

High efficiency
Reduced sound



Cooling only				GWAQ-GZXR		190	270	320	340	390
Cooling capacity	Nom.					196	264	315	334	386
Power input	Cooling	Nom.				73.3	94.8	124	117	145
Capacity control	Method					Stepless				
	Minimum capacity				%	14.4	14.3	14.9	14.3	14.8
EER						2.68	2.79	2.53	2.86	2.65
ESEER						4.88	4.95	5.05	5.07	
Dimensions	Unit	Height		mm		2,270	2,223			
		Width		mm		1,290	2,234			
		Depth		mm		4,450	3,560			
									4,460	
Weight	Unit			kg		1,618	2,124	2,180	2,430	2,536
	Operation weight			kg		1,695	2,257	2,327	2,605	2,724
Water heat exchanger	Type					Plate heat exchanger				
	Water volume			l		29	61	75	79	92
	Water flow rate	Cooling	Nom.	l/s		9.4	12.6	15.0	16.0	18.5
	Water pressure drop	Cooling	Total	kPa		26	14	15		17
Air heat exchanger	Type					High efficiency fin and tube type with integral subcooler				
Compressor	Type					DC Inverter Scroll				
	Quantity					6	8	10		12
Fan	Type					Direct propeller				
	Quantity					4	6		8	
	Air flow rate	Nom.		l/s		15,131	22,697		30,263	
	Speed			rpm			715			
Sound power level	Cooling	Nom.				89	91		92	
Sound pressure level	Cooling	Nom.				72	74		75	
Operation range	Water side	Cooling	Min.~Max.	°CDB		-8~20				
	Air side	Cooling	Min.~Max.	°CDB		-18~43				
Refrigerant	Type / GWP					R-410A / 2,087.5				
	Circuits	Quantity				1		2		
Refrigerant charge	Per circuit			kg/TCO ₂ Eq		48.0 / 100.2	36.0 / 75.2		48.0 / 100.2	
Piping connections	Evaporator water inlet/outlet (OD)					2.5"		4.5"		
Unit	Maximum starting current			A			2			
	Nominal running current (RLA)	Cooling		A		116	157	199	190	231
	Maximum running current			A		153	234	279	283	306
Power supply	Phase/Frequency/Voltage			Hz/V		3~/50/400				