



Air cooled multi-scroll heat pump

Standrad efficiency

Standard sound

- › 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 H-shaped frame**
- › Large operation range: ambient temperatures up to 48°C and down to -10°C
- › Ideal solution for **a broad range of comfort and process applications**
- › Compact design to allow easy indoor installation or retrofit operations
- › The unit can be equipped with a hydraulic module optimizing installation time, space and cost
- › Remote controller with superior control logic and easy interface

Heating & Cooling					GWYQ-G-SS	030	065	100	130	150	176	250	
Cooling capacity	Nom.				kW	30	65	101	130	150	176	250	
Heating capacity	Nom.				kW	33	72	110	140	160	187	270	
Power input	Cooling	Nom.			kW	9.6	20.8	32.2	41.2	48.2	56.4	80.6	
	Heating	Nom.			kW	10.2	23.2	34.3	43.3	51.4	60.8	86.2	
Capacity control	Method					Step							
	Minimum capacity				%	50	25	50	50	50	50	25	
EER						3.12	3.12	3.10	3.15	3.11	3.12	3.10	
ESEER						4.56	4.56	4.49	4.60	4.54	4.56	4.53	
COP						3.23	3.10	3.20	3.24	3.11	3.07	3.13	
 Space heating	Average climate water outlet 35°C	General	ηs (Seasonal space heating efficiency)	SCOP	%	142	139	138	142	139	137	138	
						3.6	3.52	3.50	3.62	3.53	3.47	3.53	
						Dimensions	Unit	Height	mm	1,880	1,880	2,000	2,080
		Width	mm	950	950	1,000	1,100	1,100	1,100	1,100	2,100		
		Depth	mm	1,000	2,000	2,000	2,200	2,200	2,200	2,200	3,800		
Weight	Unit				kg	310	630	820	940	980	1,000	1,800	
	Operation weight				kg	320	650	850	980	1,030	1,050	1,900	
Water heat exchanger	Type					Shell & Tube							
	Water flow rate	Cooling	Nom.		l/s	1.4	3.1	4.8	6.2	6.9	7.7	12.2	
		Heating	Nom.		l/s	1.5	3.2	5.3	6.7	7.3	8.2	12.9	
	Water pressure drop	Cooling	Nom.		kPa	40	39	40	42	43	43	45	
		Heating	Nom.		kPa	41	40	41	44	45	45	50	
Water volume				l	10	20	30	40	50	50	100		
Air heat exchanger	Type					High efficiency blue-fin and tube type with integral subcooler							
Compressor	Type					Scroll compressor							
	Quantity					2	4	2	2	2	2	8	
Fan	Type					Direct propeller							
	Quantity					1	2	2	2	2	2	8	
	Air flow rate	Nom.			l/s	3,334	6,667	9,861	13,148	14,200	15,000	26,667	
						Speed rpm 1,360							
Sound power level	Cooling	Nom.			dBA	83	84	87	87	89	89	92	
Sound pressure level	Cooling	Nom.			dBA	65	66	70	70	71	71	72	
Operation range	Air side	Cooling	Min.~Max.		°CDB	-10~48							
	Water side	Cooling	Min.~Max.		°CDB	-10~15							
Refrigerant	Type / GWP					R-410A / 2,087.5							
	Circuits	Quantity				2	4	2	2	2	2	4	
Refrigerant charge	Per circuit				kg/TCO ₂ Eq	7.0 / 14.6	15.0 / 31.3	18.0 / 37.6	21.0 / 43.9	23.0 / 48.0	28.4 / 59.1	35.0 / 73.1	
Piping connections	Evaporator water inlet/outlet (OD)					1" 1/4	1" 1/2	2"	2" 1/2	2" 1/2	2" 1/2	3"	
Unit	Starting current					A	32	50	75	100	110	120	200
	Running current	Cooling	Nom.		A	18	36	60	74	86	100	145	
						Max	A	25	44	65	87	98	108
Power supply	Phase/Frequency/Voltage					Hz/V 3~/50/400							

Air cooled multi-scroll heat pump

High efficiency

Reduced 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 H-shaped frame**
- › Large operation range: ambient temperatures up to 55°C and down to -10°C
- › Ideal solution for **a broad range of comfort and process applications**
- › Compact design to allow easy indoor installation or retrofit operations
- › The unit can be equipped with a hydraulic module optimizing installation time, space and cost
- › Remote controller with superior control logic and easy interface



GWYQ-G-SS/XR

Digital controller

Heating & Cooling					GWYQ-G-XR	030	065	100	130	150	176	250
Cooling capacity	Nom.				kW	30	65	101	130	150	176	250
Heating capacity	Nom.				kW	33	72	110	140	160	187	270
Power input	Cooling	Nom.			kW	9.4	19.2	30.1	38.4	46.0	50.5	78.0
	Heating	Nom.			kW	10.0	21.5	33.0	40.3	50.0	54.8	80.0
Capacity control	Method					Step						
	Minimum capacity				%	50	25	50	50	50	50	25
EER						3.20	3.38	3.30	3.47	3.26	3.48	3.20
ESEER						4.62	4.70	4.59	4.70	4.58	4.72	4.58
COP						3.30	3.34	3.3	3.4	3.30	3.4	3.25
 Space heating	Average climate water outlet 35°C	General	ηs (Seasonal space heating efficiency)	%		144	145	143	146	143	146	141
					SCOP	3.7	3.8	3.65	3.8	3.7	3.8	3.65
Dimensions	Unit	Height		mm	1,880	1,880	2,000	2,080	2,080	2,080	2,080	2,080
		Width		mm	950	950	1,000	1,100	1,100	1,100	1,100	2,100
		Depth		mm	1,000	2,000	2,000	2,200	2,200	2,200	3,800	
Weight	Unit			kg	310	630	820	940	980	1,000	1,800	
	Operation weight			kg	320	650	850	980	1,030	1,050	1,900	
Water heat exchanger	Type					Shell & Tube						
	Water flow rate	Cooling	Nom.	I/s	1.4	3.1	4.8	6.2	6.9	7.7	12.2	
		Heating	Nom.	I/s	1.5	3.2	5.3	6.7	7.3	8.2	12.9	
	Water pressure drop	Cooling	Nom.	kPa	40	39	40	42	43	43	45	
		Heating	Nom.	kPa	41	40	41	44	45	45	50	
	Water volume			I	10	20	30	40	50	50	100	
Air heat exchanger	Type					High efficiency blue-fin and tube type with integral subcooler						
Compressor	Type					Scroll compressor						
	Quantity				2	4	2	2	2	2	8	
Fan	Type					Direct propeller						
	Quantity				1	2	2	2	2	2	8	
	Air flow rate	Nom.		I/s	3,334	6,667	9,861	13,148	14,200	15,000	26,667	
	Speed			rpm				1,360				
Sound power level	Cooling	Nom.		dBA	78	80	83	84	84	85	87	
Sound pressure level	Cooling	Nom.		dBA	61	63	65	66	66	68	70	
Operation range	Air side	Cooling	Min.~Max.	°CDB		-10~-55						
	Water side	Cooling	Min.~Max.	°CDB		-10~-15						
Refrigerant	Type / GWP					R-410A / 2,087.5						
	Circuits	Quantity			2	4	2	2	2	2	4	
Refrigerant charge	Per circuit			kg/TCO,Eq	7.0 / 14.6	15.0 / 31.3	18.0 / 37.6	21.0 / 43.9	23.0 / 48.0	28.4 / 59.1	35.0 / 73.1	
Piping connections	Evaporator water inlet/outlet (OD)				1" 1/4	1" 1/2	2"	2" 1/2	2" 1/2	2" 1/2	3"	
Unit	Starting current	Max		A	30	48	70	95	105	110	190	
	Running current	Cooling	Nom.	A	17	35	54	69	82	89	140	
		Max		A	23	42	60	80	94	96	160	
Power supply	Phase/Frequency/Voltage			Hz/V		3~/50/400						

Air cooled multi-scroll heat pump

High efficiency

Standard/low sound

› Class A efficiency in heating mode

- › Extended operation range: ambient temperatures from -10°C up to +46°C in cooling mode and down to -17°C in heating mode
- › 2 truly independent refrigerant circuits
- › Reduced footprint thanks to the **V-shaped frame** (GWYQ160-230F-XS/XL & GWYQ160-220F-XR)
- › Reliable and efficient scroll compressors with **high EER values**
- › Chiller series design entirely based on new European directives (EN14511, EN14825)
- › Top serviceability level thanks to reduced weight, compact footprint and optimized components accessibility

Heating & Cooling					GWYQ-F-XS/XL				160	190	210	230	310	340	380	400	430	510	570	630				
Cooling capacity	Nom.				kW	164	184	205	231	304	335	376	401	427	502	565	624							
Heating capacity	Nom.				kW	173	197	227	254	329	362	404	429	463	535	607	674							
Power input	Cooling	Nom.			kW	57.6	63.3	70.3	79.3	102	114	129	138	145	172	195	214							
	Heating	Nom.			kW	54.0	61.6	70.5	79.2	101	113	126	133	140	167	190	210							
Capacity control	Method					Step																		
	Minimum capacity				%	25.0										17.0								
EER						2.84	2.91	2.92		2.99	2.93	2.91	2.90	2.94	2.92	2.90	2.91							
ESEER						3.73	3.89	3.81	3.71	4.07	4.19	3.99	3.96	4.14	4.20	3.98	4.06							
COP						3.20		3.22		3.21	3.24	3.21		3.23	3.30	3.21	3.20	3.21						
 Space heating	Average climate water outlet 35°C	General	ηs (Seasonal space heating efficiency)	%																				
Dimensions	Unit	Height		mm	2,270				2,220															
					1,200				2,258															
					4,370		5,270		4,125				5,025				5,925				6,825			
Weight (XS)	Unit	kg				1,430	1,850	2,300	2,350	2,900	2,910	2,920	3,730	3,750	4,250	4,280	4,670							
	Operation weight	kg				1,470	1,890	2,340	2,390	2,980	2,990	3,000	3,840	3,850	4,370	4,400	4,780							
Weight (XL)	Unit	kg				1,520	1,940	2,400	2,440	3,060	3,070	3,080	3,890	3,900	4,400	4,440	4,820							
	Operation weight	kg				1,570	1,980	2,440	2,480	3,130	3,150	3,160	3,990	4,010	4,520	4,550	4,940							
Water heat exchanger	Type	Plate heat exchanger																						
	Water flow rate	Cooling	Nom.	l/s	7.8	8.8	9.8	11.1	14.6	16.0	18.0	19.2	20.4	24.0	27.1	29.9								
		Heating	Nom.	l/s	8.3	9.5	10.9	12.2	15.9	17.5	19.5	20.7	22.3	25.8	29.3	32.5								
	Water pressure drop	Cooling	Nom.	kPa	22	28	36	40	21	27	30	29	34	37	42	56								
		Heating	Nom.	kPa	25	32	43	50	25	31	37	33	40	43	50	66								
Air heat exchanger	Water volume	l				18				44				60				70						
	Type	High efficiency fin and tube type with integral subcooler																						
	Compressor	Type	Scroll compressor																					
		Quantity	4														6							
Fan	Type	Direct propeller																						
	Quantity	4				5				8				10				12		14				
	Air flow rate	Nom.	l/s				22,577	21,593	26,992		43,187				55,213	53,983	64,780		75,577					
	Speed	rpm				900																		
Sound power level (XS)	Cooling	Nom.	dBA				92	94	95		97	98	99				100							
Sound power level (XL)	Cooling	Nom.	dBA				89	92	93		95				96				97	98				
Sound pressure level (XS)	Cooling	Nom.	dBA				72	74	75	76	77	78		79				80						
Sound pressure level (XL)	Cooling	Nom.	dBA				70	73		74	75				76	77								
Operation range	Air side	Cooling	Min.~Max.	°CDB	-10~-46																			
		Heating	Min.~Max.	°CDB	-17~-20																			
	Water side	Cooling	Min.~Max.	°CDB	-13~-15																			
		Heating	Min.~Max.	°CDB	25~-50																			
Refrigerant	Type / GWP	R-410A / 2,087.5																						
	Circuits	2																						
Refrigerant charge	Per circuit	kg/TCO ₂ Eq				16.0 / 33.4	20.0 / 41.8		24.0 / 50.1	35.0 / 73.1	36.0 / 75.2	35.0 / 73.1	46.0 / 96.0		55.0 / 114.8	52.5 / 109.6	68.0 / 142.0							
Piping connections	Evaporator water inlet/outlet (OD)				2.5"															3"				
Unit	Starting current	Max	A				282	536	353	560	600	516	637	659	666	648	787	827						
	Running current	Cooling	Nom.	A				115	140	128	162	193	205	235	251	257	307	353	384					
		Max		A				138	165	164	196	246	264	295	316	330	396	442	491					
Power supply	Phase/Frequency/Voltage	Hz/V				3~/50/400																		

Air cooled multi-scroll heat pump

High efficiency

Reduced sound



Heating & Cooling					GWYQ-F-XR	160	180	200	220	300	330	360	390	420	490	550	610
Cooling capacity	Nom.				kW	158	178	199	223	296	326	363	389	415	487	546	606
Heating capacity	Nom.				kW	173	197	227	254	329	362	404	429	463	535	607	674
Power input	Cooling	Nom.			kW	56.2	62.3	68.4	77.9	97.4	111	127	134	141	167	191	210
	Heating	Nom.			kW	54.0	61.6	70.5	79.2	101	113	126	133	140	167	190	210
Capacity control	Method					Step											
	Minimum capacity				%	25.0										17.0	
EER						2.81	2.86	2.92	2.87	3.04	2.93	2.86	2.90	2.93	2.91	2.85	2.89
ESEER						4.33	4.39	4.38	4.19	4.63	4.68	4.37	4.44	4.60	4.83	4.50	4.62
COP						3.20		3.22	3.21	3.24	3.21		3.23	3.30	3.21	3.20	3.21
	Average climate water outlet 35°C	General	ηs (Seasonal space heating efficiency)	%	SCOP	128	134	129		143	147	-					
						3.28	3.42	3.31	3.30	3.64	3.75	-					
Dimensions	Unit	Height			mm	2,270					2,220						
		Width			mm	1,200					2,258						
		Depth			mm	4,370		5,270		4,125		5,025		5,925		6,825	
Weight	Unit				kg	1,520	1,940	2,400	2,440	3,060	3,070	3,080	3,890	3,900	4,400	4,440	4,820
	Operation weight				kg	1,570	1,980	2,440	2,480	3,130	3,150	3,160	3,990	4,010	4,520	4,550	4,940
Water heat exchanger	Type					Plate heat exchanger											
	Water flow rate	Cooling	Nom.		l/s	7.5	8.5	9.6	10.7	14.2	15.6	17.4	18.6	19.8	23.3	26.1	29.0
		Heating	Nom.		l/s	8.3	9.5	10.9	12.2	15.9	17.5	19.5	20.7	22.3	25.8	29.3	32.5
	Water pressure drop	Cooling	Nom.		kPa	20	26	34	38	20	25	28	27	32	35	39	53
		Heating	Nom.		kPa	25	32	43	50	25	31	37	33	40	43	50	66
	Water volume				l	18				44			60		70		
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		8		10		12		14	
	Air flow rate	Nom.			l/s	17,380	16,564	20,706		33,129		42,431	41,411	49,693		57,975	
	Speed				rpm	700											
Sound power level	Cooling	Nom.			dBA	83	84	86		88		89	90		92		
Sound pressure level	Cooling	Nom.			dBA	64	65	66	67	69		70		71			
Operation range	Air side	Cooling	Min.~Max.		°CDB	-10~-46											
		Heating	Min.~Max.		°CDB	-17~-20											
	Water side	Cooling	Min.~Max.		°CDB	-13~-15											
						25~50											
			Heating	Min.~Max.		°CDB											
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	20.0 / 41.8	24.0 / 50.1	35.0 / 73.1	36.0 / 75.2	35.0 / 73.1	46.0 / 96.0		55.0 / 114.8		680/1420
Piping connections	Evaporator water inlet/outlet (OD)					2.5"					3"						
Unit	Starting current	Max			A	276	530	346	553	589	505	626	645	652	631	770	807
	Running current	Cooling	Nom.		A	114	138	126	160	187	201	232	245	252	301	350	379
		Max			A	133	160	157	189	235	253	283	302	316	379	425	471
Power supply	Phase/Frequency/Voltage				Hz/V	3~/50/400											