

Technical specifications QUANTUM GA

	Evaporator water In Out	Ambient temperature		GA020-S1M-L2	GA030-S1K-L3	GA030-S1K-L4	GA030-S1K-L5	GA035-E1K-L3	GA035-E1K-L4	GA035-E1K-L5	GA050-E2M-H5	GA060-S2K-L6	GA060-S2K-L7	GA060-S2K-L8	GA070-E2K-L6	GA070-E2K-L7	GA070-E2K-L8	GA075-E3M-H8	GA095-S3K-L7	GA095-S3K-L8	GA105-E3K-L7	GA105-E3K-L8				
Operating conditions acc. to Eurovent	12°C 7°C	35°C	maximum cooling capacity	kW	200	282	293	295	339	347	349	484	568	588	588	681	691	694	732	821	836	965	996			
			total power input	kW	65.3	89.0	90.8	91.3	101.3	99.5	100.2	140.3	178.6	183.2	181.3	203.0	199.6	197.9	211.4	279.9	272.3	295.0	302.7			
			current consumption	A	105	147	149	150	165	163	164	223	293	300	297	330	325	322	336	457	445	480	492			
			EER (Energy Efficiency Ratio)	kW/kW	3.06	3.17	3.23	3.23	3.35	3.49	3.48	3.45	3.18	3.21	3.24	3.35	3.46	3.51	3.46	2.93	3.07	3.27	3.29			
			EER (EN 14511)	kW/kW	3.03	3.14	3.19	3.19	3.30	3.44	3.43	3.42	3.15	3.18	3.21	3.32	3.42	3.46	3.44	2.91	3.05	3.24	3.26			
			ESEER (European Seasonal Energy Efficiency Ratio)	kW/kW	4.84	4.89	4.97	4.78	5.06	5.27	5.19	5.39	5.17	5.11	4.98	5.35	5.56	5.53	5.41	5.34	5.36	5.51	5.56			
			ESEER (EN 14511)	kW/kW	4.63	4.70	4.77	4.59	4.83	4.99	4.94	5.20	4.98	4.92	4.98	5.09	5.28	5.25	5.24	5.15	5.17	5.27	5.31			
			water flow evaporator	m³/h	34	48	50	51	58	60	60	83	97	101	101	117	119	119	126	141	143	166	171			
			pressure drop evaporator	kPa	37	40	42	42	50	52	52	31	34	36	36	46	48	48	29	32	33	42	44			
			air flow condenser	m³/h	86000	129000	171000	214000	129000	171000	214000	213000	257000	300000	342000	257000	300000	342000	342000	300000	343000	301000	342000			
			nominal cooling capacity (80% of full load capacity)	kW	160	226	234	236	271	278	279	387	454	470	470	545	553	555	586	657	669	772	797			
			total power input	kW	47.4	65.2	67.8	70.1	72.6	74.1	75.9	104.1	129.8	133.9	134.6	144.8	145.9	146.8	157.4	192.9	192.9	211.6	213.9			
			current consumption	A	79	111	115	118	122	124	127	170	219	225	226	241	243	244	256	325	325	353	356			
			EER (Energy Efficiency Ratio)	kW/kW	3.38	3.47	3.45	3.37	3.74	3.75	3.68	3.72	3.50	3.51	3.49	3.76	3.79	3.78	3.72	3.41	3.47	3.65	3.73			
			EER (EN 14511)	kW/kW	3.34	3.43	3.41	3.33	3.69	3.70	3.63	3.69	3.47	3.48	3.47	3.73	3.75	3.74	3.70	3.38	3.44	3.62	3.69			
			ESEER (European Seasonal Energy Efficiency Ratio)	kW/kW	4.57	4.77	4.66	4.42	4.99	5.01	4.81	5.12	5.06	4.97	4.90	5.41	5.31	5.16	5.16	5.27	5.24	5.53	5.53			
			ESEER (EN 14511)	kW/kW	4.42	4.62	4.53	4.29	4.81	4.83	4.63	4.98	4.92	4.83	4.76	5.21	5.12	4.98	5.04	5.13	5.10	5.35	5.34			
			water flow evaporator	m³/h	27	39	40	40	47	48	48	66	78	81	81	94	95	95	101	113	115	132	137			
			pressure drop evaporator	kPa	29	31	32	32	38	39	39	22	24	25	25	32	33	33	20	23	23	29	31			
			air flow condenser	m³/h	86000	128000	171000	213000	128000	171000	213000	214000	257000	299000	342000	257000	299000	342000	342000	300000	342000	300000	343000			
			Operating conditions acc. to AHRI 551-591 [SI System]	12°C 7°C	35°C	cooling capacity	kW	200.0	281.0	291.0	295.0	340.0	345.0	346.0	481.0	565.0	585.0	585.0	683.0	685.0	691.0	730.0	816.0	830.0	960.0	989.0
						total power input	kW	65.82	89.07	90.55	92.24	103.0	99.56	99.79	139.5	178.8	183.1	181.3	206.8	199.4	198.4	212.0	279.8	271.3	300.0	300.4
EER (Energy Efficiency Ratio)	W/W	3.038				3.155	3.214	3.198	3.299	3.465	3.467	3.449	3.161	3.195	3.226	3.302	3.436	3.482	3.443	2.916	3.059	3.200	3.292			
IPLV,SI	W/W	5.714				5.778	5.778	5.690	6.087	6.018	6.027	6.353	6.059	6.018	6.209	6.334	6.198	6.369	6.386	6.160	6.232	6.254	6.272			
water flow evaporator	L/s	9.444				13.33	13.89	14.17	16.11	16.39	16.39	23.06	26.94	27.78	27.78	32.50	32.78	33.06	34.72	38.89	39.44	45.83	47.22			
pressure drop evaporator	kPa	37.1				39.5	41.2	41.9	50.4	51.4	51.6	30.5	33.9	35.9	46.6	46.9	47.6	47.6	31.8	32.7	32.7	41.7	43.9			
air flow condenser	L/s	23889	35833	47500	59167	35556	47500	59444	59444	71389	83333	95000	71667	83333	95000	95278	83333	95278	83333	95278						
Compressor data			oilfree magnetic bearing variable centrifugal compressor	no.	1	1	1	1	1	1	2	2	2	2	2	2	2	3	3	3	3	3				
			supply voltage 400 V/3p 50 Hz	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
			full load amperage (FLA)	A	96	175	183	191	175	183	191	193	350	358	366	350	358	366	289	509	517	509	517			
			start-up current per compressor	A	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5			
Noise data			sound power	dB(A)	94	94	95	96	94	95	96	98	97	98	98	97	98	99	98	99	98	99				
			sound pressure in 10 m distance	dB(A)	63	63	64	65	63	64	65	66	66	66	66	66	66	67	67	67	67	67				
Heat exchangers			open flash economizer	-	-	1	-	-	-	1	1	1	-	-	-	1	1	1	1	1	1					
			evaporator type shell and tube - flooded	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
			water connection evaporator (Victaulic) Ø	DN	125	125	125	125	125	125	150	150	150	150	150	150	200	200	200	200	200					
			condenser type microchannel	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
			fans	no.	4	6	8	10	6	8	10	10	12	14	16	12	14	16	16	14	16	14				
Size and weight			length	mm inch	4837 190	4837 190	6085 240	6965 274	4837 190	6085 240	6965 274	6400 252	8755 345	10005 394	11255 443	8474 334	10136 399	11255 443	11255 443	9460 372	10723 422	9460 372	10723 422			
			width	mm inch	2375 94	2375 94	2375 94	2381 94	2375 94	2375 94	2381 94	2375 94	2375 94	2375 94	2368 93	2375 94	2375 94	2368 93	2368 93	2397 94	2375 94	2397 94	2375 94			
			height	mm inch	2733 108	2733 108	2733 108	2733 108	2733 108	2733 108	2733 108	2735 108	2498 98	2498 98	2498 98	2498 98	2500 98	2498 98	2498 98	2539 100	2498 98	2539 100	2498 98			
			transport weight (approx.)	kg	3085	3085	3190	3295	3205	3310	3415	5190	5410	5935	6450	4560	5660	6700	6700	7430	7545	7688	7955			
			operation weight (approx.)	kg	3200	3200	3400	3500	3300	3600	3700	6150	5600	6200	6700	4710	5810	6900	6900	7800	7900	7978	8245			
			refrigerant filling R-1234ze for GA-series	kg	85	85	90	95	105	110	115	190	160	175	185	200	215	225	225	330	345	405	420			
GWP and CO ₂ equivalent			GWP acc. to IPCC (AR4) and regulation (EC) no. 517/2014	-	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7				
			CO ₂ equivalent	1000 kg	0.60	0.60	0.63	0.67	0.74	0.77	0.81	1.33	1.12	1.23	1.30	1.40	1.51	1.58	1.58	2.31	2.42	2.84	2.94			
			GWP acc. to IPCC (AR5)	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1			
			CO ₂ equivalent	1000 kg	< 0.08	< 0.08	< 0.09	< 0.09	< 0.10	< 0.11	< 0.11	< 0.16	< 0.16	< 0.17	< 0.18	< 0.20	< 0.21	< 0.22	< 0.33	< 0.33	< 0.34	< 0.40	< 0.42			

* Certified in accordance with the AHRI Air-Cooled Water-Chilling Packages Certification Program, which is based on AHRI Standard 550/590 (I-P) and AHRI Standard 551/591 (SI). Certified units may be found in the AHRI Directory at www.ahridirectory.org.

