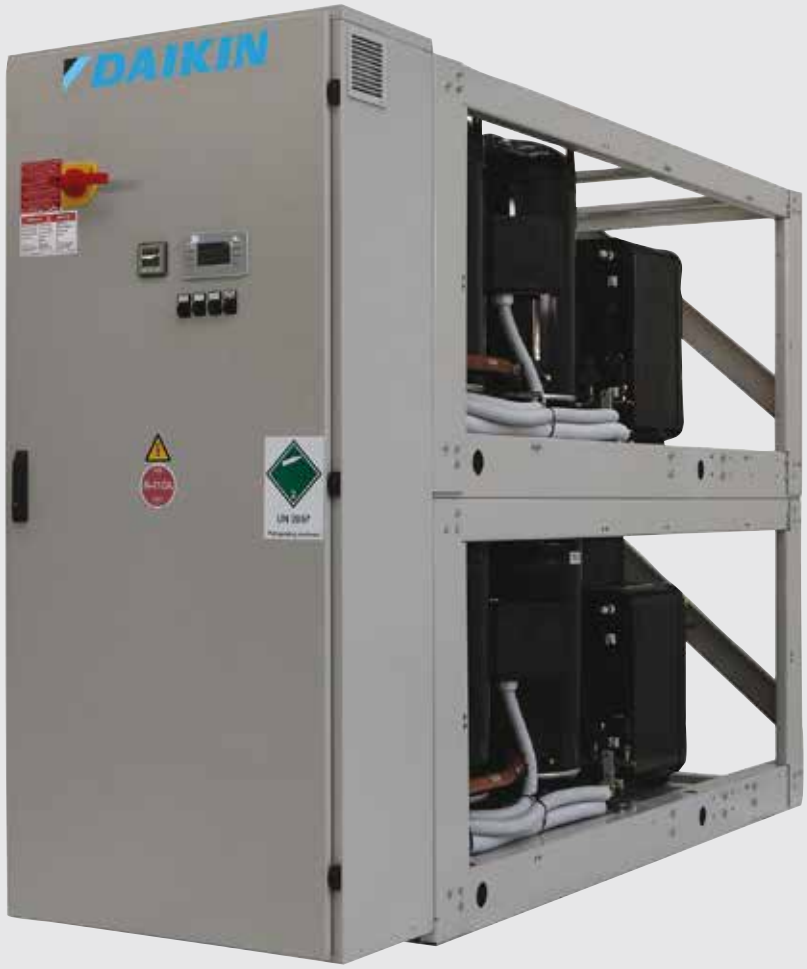
Water cooled multi-scroll chiller, standard efficiency, standard sound

EWWQ-L-SS



Scroll compressor

- 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 lift) available for evaporator and condenser

EWWQ-L-SS

EWWQ-L-SS

Heating only & Cooling only					EWWQ-L-SS	180	205	230	260	290	330	380	430	480	540	600	660	720
Cooling capacity	Nom.				kW	187 (1)	215 (1)	244 (1)	273 (1)	303 (1)	345 (1)	387 (1)	430 (1)	476 (1)	549 (1)	611 (1)	663 (1)	721 (1)
Heating capacity	Nom.				kW	234 (2)	269 (2)	305 (2)	339 (2)	377 (2)	430 (2)	486 (2)	537 (2)	601 (2)	692 (2)	773 (2)	843 (2)	917 (2)
Power input	Cooling	Nom.			kW	41.7 (1)	47.3 (1)	53.1 (1)	60.2 (1)	67.1 (1)	77.1 (1)	87.0 (1)	97.9 (1)	110 (1)	124 (1)	140 (1)	154 (1)	167 (1)
	Heating	Nom.			kW	50.5 (2)	57.5 (2)	65.0 (2)	73.6 (2)	82.0 (2)	94.4 (2)	107 (2)	118 (2)	133 (2)	150 (2)	171 (2)	188 (2)	204 (2)
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 (2)	4.67 (2)	4.68 (2)	4.60 (2)		4.56 (2)	4.55 (2)	4.54 (2)	4.51 (2)	4.60 (2)	4.53 (2)	4.48 (2)	4.49 (2)
IPLV						6.77	6.84	6.35	6.38	6.31	6.32	6.36	6.37	6.16	6.29	6.23	6.20	6.18
Space heating	Average climate water outlet 35°C	General	ηs (Seasonal space heating efficiency)		%	177	176	178	176	177	-							
			SCOP			4.08		4.14	4.24	4.23	-							
Dimensions	Unit	Height			mm	1,970									2,090	2,210		
		Width			mm	928												
		Depth			mm	2,801												
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	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	-												
		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	
	Water pressure drop	Cooling	Nom.		kPa	72	73	61	49	50	51	55	46	57	43	67		68
		Heating	Nom.		kPa	76	77	64	52		53	59	48	60	70	72	73	
	Water pressure drop 2	Cooling	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_2eq	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)					1" 1/2		2" 1/2							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												

(1) Cooling: entering evaporator water temp. 12°C; leaving evaporator water temp. 7°C; entering condenser water temp. 30°C; leaving condenser water temp. 35°C; full load operation.
(2) Heating capacity, unit power input and COP are based on the following conditions: evaporator 5/10°C; condensor 40/45°C, unit at full load operation.
(3) Sound power (evap. 12/7°C, ambient 35°C full load operation) in accordance with ISO9614 and Eurovent 8/1 for Eurovent certified units. Certification refers only to the overall sound power, sound pressure is calculated form sound power level and used for info only, not considered bounding.
(4) Equipment contains fluorinated greenhouse gases. Actual refrigerant charge depends on the final unit construction, details can be found on the unit labels.

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