



S-ASX-LQ
Commercial High Temperature
Air-To-Water Heat Pump

55 – 95 kW

Commercial Air-to-Water Heat Pump

The S-ASX-LQ range comprises 5 models offering LTHW heating in 55,65,75,85 and 95kW outputs in the A7W35 condition. All the units are capable of generating up to 68°C flow temperature utilising the built-in liquid injection flow temperature booster (LQ). Depending on the model the units achieve a COP of between 4.45 and 4.51 at 7°C ambient air temperature and 35°C flow temperature. The control system allows the unit to be operated in cascade of up to 16 units.

The units are of monobloc design suitable for outside installation and are supplied as standard with a built-in modulating pump, low noise set up and soft start compressor. Heat energy from the ambient air is obtained from the R410A refrigerant circulating inside a bank of copper and aluminium fins and then this energy is passed, after the compression cycle, to the heating circuit through a stainless steel brazed heat exchanger. The circuit is controlled by the standard supplied temperature probes and pressure transducers and is protected by high and low pressure switches. The plate heat exchanger and all hydraulic pipework is thermally insulated to avoid condensation and avoid heat loss.

The S-ASX-LQ units are fully reversible and can operate in cooling mode in the summer months achieving EER of 3.80 at 35°C ambient air and 18°C flow.

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High Temperature Design

The S-ASX-LQ range of high temperature heat pumps has many applications being well suited both to new build applications with low flow temperatures as well as retrofit applications when operating at temperatures as high as 68°C.

Not all heat pumps have the ability to operate up to 68°C as the condensation pressure that occurs at this temperature is higher than the operating pressure of most compressors. In order to ensure that high temperature water can even be produced at very low ambient air temperature (down to -20°C) the compressor is boosted with an additional liquid injection circuit.



S-ASX-LQ 55 Unit

- Twin fan model
- SCOP 4.23 at 35°C
- Built-in modulating pump
- Soft Start included as standard
- Flow temperature up to 68°C

S-ASX-LQ 65 and 75 Units

- Three fan model
- SCOP up to 4.26 at 35°C
- Built-in modulating pump
- Soft Start included as standard
- Flow temperature up to 68°C



R410A



Strebel S-ASX-LQ Technical Specifications

Model		55	65	75	85	95	
Efficiency label at 35°C ⁽¹⁾		A++	A++	A++	A++	A++	
Efficiency label at 55°C ⁽¹⁾		A++	A++	A++	A++	A++	
SCOP at 35°C		4.23	4.26	4.21	4.24	4.21	
SCOP at 45°C		3.62	3.65	3.60	3.63	3.60	
SCOP at 55°C		3.35	3.36	3.32	3.35	3.32	
SCOP at 65°C		2.97	2.99	2.94	2.97	2.95	
A7W35	Heating capacity	kW	57.7	65.8	74.8	85.1	95.8
	Power input	kW	12.9	14.6	16.8	19.0	21.5
	COP		4.47	4.51	4.45	4.48	4.46
	Water flow rate	l/h	9944	11348	12910	14677	16532
	Pressure drops	kPa	29	25	23	29	27
A7W45	Heating capacity	kW	56.5	64.5	73.3	83.4	93.9
	Power input	kW	15.7	17.7	20.4	23.1	26.1
	COP		3.60	3.64	3.59	3.61	3.60
	Water flow rate	l/h	9778	11159	12696	14433	16256
	Pressure drops	kPa	28	25	22	28	26
A7W55	Heating capacity	kW	55.3	63.0	71.7	81.5	91.8
	Power input	kW	17.9	20.4	23.5	26.5	30.0
	COP		3.09	3.09	3.05	3.08	3.06
	Water flow rate	l/h	6010	6859	7803	8870	9991
	Pressure drops	kPa	11	10	9	12	11
A7W65	Heating capacity	kW	53.8	61.4	69.8	79.4	89.4
	Power input	kW	20.7	23.5	27.1	30.6	34.7
	COP		2.60	2.61	2.58	2.59	2.58
	Water flow rate	l/h	4702	5366	6104	6939	7816
	Pressure drops	kPa	7	6	6	7	7
A2W35	Heating capacity	kW	47.8	54.5	62.0	70.5	79.3
	Power input	kW	12.6	14.3	16.4	18.6	21.0
	COP		3.79	3.81	3.78	3.79	3.78
	Water flow rate	l/h	8239	9402	10697	12160	13697
	Pressure drops	kPa	21	18	16	21	19
A2W45	Heating capacity	kW	46.6	53.2	60.5	68.8	77.4
	Power input	kW	15.4	17.4	20.1	22.7	25.7
	COP		3.03	3.06	3.01	3.03	3.01
	Water flow rate	l/h	8067	9207	10474	11907	13412
	Pressure drops	kPa	20	17	16	20	18
A2W55	Heating capacity	kW	45.3	51.7	58.8	66.9	75.4
	Power input	kW	17.7	20.1	23.2	26.2	29.7
	COP		2.56	2.57	2.53	2.55	2.54
	Water flow rate	l/h	4933	5630	6404	7281	8201
	Pressure drops	kPa	8	7	6	8	8
A2W65	Heating capacity	kW	43.9	50.1	57.0	64.8	72.9
	Power input	kW	20.5	23.3	26.9	30.3	34.4
	COP		2.14	2.15	2.12	2.14	2.12
	Water flow rate	l/h	3835	4376	4979	5660	6375
	Pressure drops	kPa	5	4	4	5	5
A-4W35	Heating capacity	kW	42.0	47.9	54.5	62.0	69.8
	Power input	kW	12.3	13.9	16.0	18.1	20.5
	COP		3.41	3.45	3.41	3.43	3.40
	Water flow rate	l/h	7252	8277	9416	10704	12057
	Pressure drops	kPa	16	14	13	16	15
A-4W45	Heating capacity	kW	40.9	46.6	53.0	60.3	67.9
	Power input	kW	15.1	17.1	19.7	22.2	25.2
	COP		2.71	2.73	2.69	2.72	2.69
	Water flow rate	l/h	7077	8077	9189	10446	11766
	Pressure drops	kPa	15	14	12	16	14
A-4W55	Heating capacity	kW	39.6	45.2	51.4	58.4	65.8
	Power input	kW	17.4	19.8	22.8	25.7	29.2
	COP		2.28	2.28	2.25	2.27	2.25
	Water flow rate	l/h	4310	4918	5595	6361	7165
	Pressure drops	kPa	6	5	5	6	6
A-4W65	Heating capacity	kW	38.1	43.5	49.5	56.3	63.4
	Power input	kW	20.3	23.0	26.5	29.9	33.9
	COP		1.88	1.89	1.87	1.88	1.87
	Water flow rate	l/h	3333	3804	4327	4919	5541
	Pressure drops	kPa	4	3	3	4	4

A7W65 = source : air in 7°C d.b. 6°C w.b. / plant : water in 55°C out 65°C
A7W55 = source : air in 7°C d.b. 6°C w.b. / plant : water in 47°C out 55°C
A7W45 = source : air in 7°C d.b. 6°C w.b. / plant : water in 40°C out 45°C
A7W35 = source : air in 7°C d.b. 6°C w.b. / plant : water in 30°C out 35°C
A2W65 = source : air in 2°C d.b. 1 °C w.b. / plant : water 55°C out 65°C
A2W55 = source : air in 2°C d.b. 1 °C w.b. / plant : water 47°C out 55°C

A2W45 = source : air in 2°C d.b. 1 °C w.b. / plant water 40°C out 45°C
A2W35 = source : air in 2°C d.b. 1 °C w.b. / plant water 30°C out 35°C
A-4W65 = source : air in -4°C d.b. -5°C w.b. / plant : water in 55°C out 65°C
A-4W55 = source : air in -4°C d.b. -5°C w.b. / plant : water in 47°C out 55°C
A-4W45 = source : air in -4°C d.b. -5°C w.b. / plant : water in 40°C out 45°C
A-4W35 = source : air in -4°C d.b. -5°C w.b. / plant : water in 30°C out 35°C

Strebel S-ASX-LQ Technical Data

Model		55	65	75	85	95
Power supply	V-p-Hz	400 - 3 - 50				
Compressor type	High Temperature Scroll with Liquid Injection					
No. compressors/No. refrigerant circuits	Qty	2,1				
Refrigerant	R410A					
Plant heat exchanger type	Stainless steel brazed plates					
Source heat exchanger	Finned Coil					
Fans	Axial EC					
No. fans	Qty	2	3	3	4	4
Hydraulic fittings	2" M					
Operating Weight	kg	608	738	752	893	907
Maximum power input	kW	25.2	29.4	32.4	37.2	41.6
Low Noise Acoustic Settings (as Standard)						
Sound power level	dB(A)	76	77	77	78	78
Sound pressure at 1 metre	dB(A)	59	59	60	60	61
Sound pressure at 5 metres	dB(A)	50	50	50	51	52
Sound pressure at 10 metres	dB(A)	44	45	45	46	47

The acoustic data performances are referred to units operating in heating mode at nominal conditions A7W35.

The sound power level is measured in accordance to ISO 3744 standard.

The sound pressure level is calculated according to ISO 3744 and is referred to a distance of 1/5/10 metres from the external surface of the unit.

Dimensions						
		55	65	75	85	95
L	mm	1730	2480	2480	3230	3230
B	mm	930	930	930	930	930
H	mm	1830	1830	1830	1830	1830
X1	mm	200	200	200	200	200
X2	mm	500	500	500	500	500
Y1	mm	1000	1000	1000	1000	1000
Y2	mm	500	500	500	500	500

The values are referred to units without options and accessories.

COP (Coefficient Of Performance) = ratio of the total heating capacity to the effective power input of the unit

All COP data in accordance with EN 14511 ⁽¹⁾ In accordance with European regulation 811/2013

The company reserves the right to change the specifications and dimensions without prior notice. E.&O.E.