

TECHNICAL PRODUCT SUBMITTAL

AMICUS LAHP-1654HTNN ULTRA LOW NOISE AIR SOURCE HEAT PUMP

Data	Unit	LAHP-1654HTNN
Heating Data		
Heating Capacity (EN14511) ¹	kW	165
Total Power input (EN14511) ¹	kW	36.6
COP (EN14511) ¹	W/W	4.51
Nominal flow rate	m ³ /h	28.51
Pressure drop across the heat pump	kPa	32.2
Design air flow rate	m ³ /h	41085
EcoDesign data ²		
Energy Label Rating Low temperature		A++
SCOP Low Temperature		4.15
Seasonal Efficiency Low temperature	%	163
Energy Label Rating High temperature		A++
SCOP High Temperature		3.4
Seasonal Efficiency High temperature	%	133
Cooling Data (RV units only)		
Cooling Capacity (EN14511) ³	kW	138
Total Power input (EN14511) ³	kW	50.7
EER (EN14511) ³	W/W	2.72
Nominal flow rate	m ³ /h	23.83
Pressure drop across the heat pump	kPa	26.8
Design air flow rate	m ³ /h	44055
General data		
Refrigerant		R410A
Compressor Type		E.V.I. Scroll
Number of Compressors		4
Number of Circuits		2
Capacity steps		4
Minimum capacity step	%	25
Sound power level	dB(A)	74
Sound pressure level (10m)	dB(A)	42
Minimum water content in the user circuit	litre	820
Electrical Data		
Power supply	V/Ph/Hz	400/3+N/50
Maximum input power	kW	76.4
Maximum input current standard unit	A (per phase)	136
Peak input current standard unit	A (per phase)	277
Peak input current unit with soft start option fitted	A (per phase)	208
Fuse rating (delayed)	A	200
Fans		
Type		Axial EC
Number of fans (standard unit)	n ^o	4
Dimensions		
Height	mm	2355
Length	mm	4205
Width	mm	2190
Shipping Weight	Kg	2800

¹=external air+7C 30/35 flow

²=average conditions according to EU/811/2013

³=Cooling external air +35C 12/7 flow

TECHNICAL PRODUCT SUBMITTAL

AMICUS LAHP-1654HTNN ULTRA LOW NOISE AIR SOURCE HEAT PUMP

LAHP-1654NN			Heating OUT						Max Outlet	
Water Delivery Temperature		35C	40C	45C	50C	55C	60C	*		
Source air temperature	-10	Heat Output (KW)	97	98.2	99.3	101	104	n/a	n/a	59
		Efficiency COP	2.61	2.42	2.24	2.06	1.90	n/a	n/a	
	-8	Heat Output (KW)	102	103	104	106	108	112	112	61
		Efficiency COP	2.72	2.52	2.33	2.15	1.97	1.83	1.79	
	-6	Heat Output (KW)	108	109	109	111	113	116	119	63
		Efficiency COP	2.86	2.65	2.42	2.23	2.04	1.88	1.81	
	-4	Heat Output (KW)	113	114	115	117	119	123	125	63
		Efficiency COP	2.97	2.75	2.54	2.34	2.14	1.98	1.89	
	-2	Heat Output (KW)	122	123	124	126	129	132	134	63
		Efficiency COP	3.23	2.98	2.74	2.50	2.30	2.11	2.01	
	0	Heat Output (KW)	131	133	134	136	139	142	144	63
		Efficiency COP	3.49	3.23	2.95	2.69	2.46	2.25	2.14	
	2	Heat Output (KW)	141	143	144	146	149	152	154	63
		Efficiency COP	3.78	3.48	3.16	2.87	2.63	2.39	2.27	
	4	Heat Output (KW)	151	153	157	158	161	164	166	63
		Efficiency COP	4.07	3.72	3.44	3.10	2.82	2.57	2.43	
	6	Heat Output (KW)	162	163	165	167	169	171	173	63
		Efficiency COP	4.41	3.99	3.62	3.27	2.95	2.66	2.52	
8	Heat Output (KW)	168	169	172	173	175	178	179	63	
	Efficiency COP	4.59	4.13	3.76	3.37	3.04	2.76	2.59		
25#	Heat Output (KW)	213	214	215	216	218	220	223	63	
	Efficiency COP	5.80	5.14	4.56	4.05	3.63	3.26	3.09		

*Performance at max flow temperature

Use for DHW performance in summer months

Amicus air to water heat pumps must be installed and maintained in line with the Installation Commissioning and Maintenance Instructions which are available on the Literature & Downloads section of www.lochinvar.ltd.uk

TECHNICAL PRODUCT SUBMITTAL

AMICUS LAHP-1654HTNN ULTRA LOW NOISE AIR SOURCE HEAT PUMP

model	octave bands (hz)								lw		lp
	63	125	250	500	1k	2k	4k	8k	db	db	db
	db	db	db	db	db	db	db	db			
252HTNN	80.1	72.3	66.2	64.7	63.6	58.2	54.8	45.7	81.9	68	36
302HTNN	81.1	73.3	67.2	65.7	64.6	59.2	55.8	46.7	82.9	69	37
452HTNN	83.1	75.3	69.2	67.7	66.6	61.2	57.8	48.7	84.9	71	39
492HTNN	83.1	75.3	69.2	67.7	66.6	61.2	57.8	48.7	84.9	71	39
602HTNN	83.1	75.3	69.2	67.7	66.6	61.2	57.8	48.7	84.9	71	39
752HTNN	85.1	76.3	70.2	68.7	67.6	62.2	58.8	49.7	85.9	72	40
852HTNN	85.1	76.3	69.2	67.7	66.6	61.2	57.8	48.7	84.9	71	39
1002HTNN	85.1	76.3	70.2	68.7	67.6	62.2	58.8	49.7	85.9	72	40
1202HTNN	85.1	76.3	70.2	68.7	67.6	62.2	58.8	49.7	85.9	72	40
1454HTNN	87.1	78.3	72.2	70.7	69.6	64.2	60.8	51.7	87.9	74	42
1654HTNN	87.1	78.3	72.2	70.7	69.6	64.2	60.8	51.7	87.9	74	42
1854HTNN	88.1	79.3	73.2	71.7	70.6	65.2	61.8	52.7	88.9	75	43
2154HTNN	88.1	79.3	73.2	71.7	70.6	65.2	61.8	52.7	88.9	75	43

TECHNICAL PRODUCT SUBMITTAL

AMICUS LAHP-1654HTNN ULTRA LOW NOISE AIR SOURCE HEAT PUMP

