

TECHNICAL PRODUCT SUBMITTAL

AMICUS LAHP-1454HTNN ULTRA LOW NOISE AIR SOURCE HEAT PUMP

Data	Unit	LAHP-1454HTNN
Heating Data		
Heating Capacity (EN14511) ¹	kW	147
Total Power input (EN14511) ¹	kW	31.5
COP (EN14511) ¹	W/W	4.67
Nominal flow rate	m ³ /h	25.34
Pressure drop across the heat pump	kPa	26.1
Design air flow rate	m ³ /h	39832
EcoDesign data ²		
Energy Label Rating Low temperature		A++
SCOP Low Temperature		4.31
Seasonal Efficiency Low temperature	%	169
Energy Label Rating High temperature		A++
SCOP High Temperature		3.41
Seasonal Efficiency High temperature	%	134
Cooling Data (RV units only)		
Cooling Capacity (EN14511) ³	kW	125
Total Power input (EN14511) ³	kW	41.4
EER (EN14511) ³	W/W	3.02
Nominal flow rate	m ³ /h	21.44
Pressure drop across the heat pump	kPa	22.2
Design air flow rate	m ³ /h	44257
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	750
Electrical Data		
Power supply	V/Ph/Hz	400/3+N/50
Maximum input power	kW	65.6
Maximum input current standard unit	A (per phase)	110
Peak input current standard unit	A (per phase)	224
Peak input current unit with soft start option fitted	A (per phase)	168
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	2750

¹=external air+7C 30/35 flow

²=average conditions according to EU/811/2013

³=Cooling external air +35C 12/7 flow

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LAHP-1454NN		Heating OUT							Max Outlet	
Water Delivery Temperature		35C	40C	45C	50C	55C	60C	*		
Source air temperature	-10	Heat Output (KW)	89	90	91	91	91	n/a	n/a	59
		Efficiency COP	2.68	2.47	2.26	2.06	1.87	n/a	n/a	
	-8	Heat Output (KW)	94	95	95	96	97	98	97	61
		Efficiency COP	2.80	2.58	2.36	2.15	1.96	1.80	1.75	
	-6	Heat Output (KW)	98.0	99.1	99.6	101	102	103	103	63
		Efficiency COP	2.93	2.69	2.46	2.25	2.05	1.87	1.76	
	-4	Heat Output (KW)	103	104	105	107	109	110	111	63
		Efficiency COP	3.07	2.83	2.58	2.37	2.17	1.97	1.88	
	-2	Heat Output (KW)	111	112	114	116	118	119	120	63
		Efficiency COP	3.35	3.06	2.81	2.56	2.34	2.12	2.01	
	0	Heat Output (KW)	120	121	123	125	127	129	130	63
		Efficiency COP	3.67	3.32	3.03	2.75	2.50	2.28	2.16	
	2	Heat Output (KW)	128	130	131	134	136	138	139	63
		Efficiency COP	3.95	3.59	3.23	2.95	2.67	2.43	2.29	
	4	Heat Output (KW)	138	139	141	143	145	147	149	63
		Efficiency COP	4.33	3.88	3.51	3.16	2.85	2.57	2.45	
6	Heat Output (KW)	144	146	147	149	151	153	155	63	
	Efficiency COP	4.56	4.11	3.67	3.30	2.97	2.68	2.54		
8	Heat Output (KW)	150	151	153	155	157	159	160	63	
	Efficiency COP	4.78	4.27	3.83	3.44	3.08	2.78	2.62		
25#	Heat Output (KW)	191	190	191	192	194	196	198	63	
	Efficiency COP	6.04	5.37	4.79	4.25	3.80	3.41	3.22		

*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

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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

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