

TECHNICAL PRODUCT SUBMITTAL

AMICUS LAHP-1854HTNN ULTRA LOW NOISE AIR SOURCE HEAT PUMP

Data	Unit	LAHP-1854HTNN
Heating Data		
Heating Capacity (EN14511) ¹	kW	185
Total Power input (EN14511) ¹	kW	40.0
COP (EN14511) ¹	W/W	4.62
Nominal flow rate	m ³ /h	31.90
Pressure drop across the heat pump	kPa	34.3
Design air flow rate	m ³ /h	51705
EcoDesign data ²		
Energy Label Rating Low temperature		A++
SCOP Low Temperature		4.23
Seasonal Efficiency Low temperature	%	166
Energy Label Rating High temperature		A++
SCOP High Temperature		3.47
Seasonal Efficiency High temperature	%	136
Cooling Data (RV units only)		
Cooling Capacity (EN14511) ³	kW	156
Total Power input (EN14511) ³	kW	50.9
EER (EN14511) ³	W/W	3.06
Nominal flow rate	m ³ /h	26.79
Pressure drop across the heat pump	kPa	28.9
Design air flow rate	m ³ /h	58957
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)	75
Sound pressure level (10m)	dB(A)	43
Minimum water content in the user circuit	litre	900
Electrical Data		
Power supply	V/Ph/Hz	400/3+N/50
Maximum input power	kW	82.2
Maximum input current standard unit	A (per phase)	140
Peak input current standard unit	A (per phase)	281
Peak input current unit with soft start option fitted	A (per phase)	212
Fuse rating (delayed)	A	200
Fans		
Type		Axial EC
Number of fans (standard unit)	n°	6
Dimensions		
Height	mm	2355
Length	mm	4205
Width	mm	2190
Shipping Weight	Kg	2840

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-1854NN			Heating OUT							Max Outlet
Water Delivery Temperature			35C	40C	45C	50C	55C	60C	*	
Source air temperature	-10	Heat Output (KW)	111	112	113	115	116	n/a	n/a	59
		Efficiency COP	2.72	2.51	2.32	2.15	1.98	n/a	n/a	
	-8	Heat Output (KW)	116	117	119	120	122	123	123	61
		Efficiency COP	2.83	2.61	2.43	2.23	2.06	1.90	1.86	
	-6	Heat Output (KW)	121	123	124	126	128	129	130	63
		Efficiency COP	2.94	2.72	2.51	2.32	2.15	1.97	1.88	
	-4	Heat Output (KW)	129	131	133	135	137	139	140	63
		Efficiency COP	3.13	2.89	2.68	2.48	2.28	2.11	2.01	
	-2	Heat Output (KW)	140	141	143	146	148	150	151	63
		Efficiency COP	3.41	3.12	2.88	2.67	2.45	2.26	2.15	
	0	Heat Output (KW)	151	153	154	157	159	162	163	63
		Efficiency COP	3.68	3.39	3.10	2.86	2.62	2.43	2.31	
	2	Heat Output (KW)	162	164	166	168	170	173	174	63
		Efficiency COP	3.97	3.64	3.33	3.05	2.79	2.57	2.44	
	4	Heat Output (KW)	173	174	176	178	181	183	185	63
		Efficiency COP	4.28	3.89	3.56	3.24	2.97	2.72	2.60	
	6	Heat Output (KW)	182	182	184	186	188	190	192	63
		Efficiency COP	4.54	4.09	3.73	3.39	3.09	2.83	2.70	
	8	Heat Output (KW)	188	189	190	192	194	197	198	63
		Efficiency COP	4.71	4.27	3.86	3.51	3.19	2.93	2.78	
	25#	Heat Output (KW)	238	236	236	236	237	239	241	63
		Efficiency COP	5.89	5.28	4.76	4.28	3.87	3.53	3.37	

*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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