

TECHNICAL PRODUCT SUBMITTAL

AMICUS LAHP-2154HTNN ULTRA LOW NOISE AIR SOURCE HEAT PUMP

Data	Unit	LAHP-2154HTNN
Heating Data		
Heating Capacity (EN14511) ¹	kW	214
Total Power input (EN14511) ¹	kW	48.0
COP (EN14511) ¹	W/W	4.46
Nominal flow rate	m ³ /h	36.97
Pressure drop across the heat pump	kPa	44.7
Design air flow rate	m ³ /h	54250
EcoDesign data ²		
Energy Label Rating Low temperature		A++
SCOP Low Temperature		4.12
Seasonal Efficiency Low temperature	%	162
Energy Label Rating High temperature		A++
SCOP High Temperature		3.42
Seasonal Efficiency High temperature	%	134
Cooling Data (RV units only)		
Cooling Capacity (EN14511) ³	kW	179
Total Power input (EN14511) ³	kW	62.8
EER (EN14511) ³	W/W	2.85
Nominal flow rate	m ³ /h	30.80
Pressure drop across the heat pump	kPa	37.0
Design air flow rate	m ³ /h	58740
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	1050
Electrical Data		
Power supply	V/Ph/Hz	400/3+N/50
Maximum input power	kW	91.8
Maximum input current standard unit	A (per phase)	158
Peak input current standard unit	A (per phase)	289
Peak input current unit with soft start option fitted	A (per phase)	233
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	2890

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-2154NN			Heating OUT						Max Outlet	
Water Delivery Temperature			35C	40C	45C	50C	55C	60C		*
Source air temperature	-10	Heat Output (KW)	129	130	132	133	136	n/a	n/a	59
		Efficiency COP	2.67	2.46	2.29	2.10	1.95	n/a	n/a	
	-8	Heat Output (KW)	135	137	138	140	142	144	145	61
		Efficiency COP	2.77	2.58	2.38	2.19	2.02	1.87	1.84	
	-6	Heat Output (KW)	142	143	144	146	148	151	152	63
		Efficiency COP	2.90	2.67	2.46	2.27	2.09	1.94	1.84	
	-4	Heat Output (KW)	149	150	151	154	156	159	161	63
		Efficiency COP	3.02	2.79	2.57	2.38	2.19	2.03	1.94	
	-2	Heat Output (KW)	161	163	164	166	169	172	174	63
		Efficiency COP	3.28	3.03	2.78	2.55	2.36	2.18	2.08	
	0	Heat Output (KW)	174	175	177	179	182	184	186	63
		Efficiency COP	3.56	3.25	2.99	2.74	2.52	2.31	2.21	
	2	Heat Output (KW)	186	188	189	192	194	197	199	63
		Efficiency COP	3.81	3.50	3.19	2.93	2.67	2.46	2.34	
	4	Heat Output (KW)	198	200	202	204	206	209	211	63
		Efficiency COP	4.08	3.74	3.41	3.11	2.83	2.60	2.48	
	6	Heat Output (KW)	210	212	213	215	217	219	221	63
		Efficiency COP	4.37	3.98	3.61	3.28	2.98	2.72	2.59	
8	Heat Output (KW)	218	219	221	222	224	226	228	63	
	Efficiency COP	4.54	4.12	3.75	3.39	3.08	2.80	2.67		
25#	Heat Output (KW)	272	272	272	273	274	275	277	63	
	Efficiency COP	5.57	5.04	4.54	4.11	3.71	3.36	3.20		

*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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