

TECHNICAL PRODUCT SUBMITTAL

AMICUS LAHP-1454HTS STANDARD AIR SOURCE HEAT PUMP

Data	Unit	Model
		LAHP-1454HTS
Heating Data		
Heating Capacity (EN14511) ¹	kW	146
Total Power input (EN14511) ¹	kW	33.7
COP (EN14511) ¹	W/W	4.33
Nominal flow rate	m ³ /h	25.3
Pressure drop across the heat pump	kPa	29.3
Design air flow rate	m ³ /h	52198
EcoDesign data ²		
Energy Label Rating Low temperature		A++
SCOP Low Temperature		3.88
Seasonal Efficiency Low temperature	%	152
Energy Label Rating High temperature		A+
SCOP High Temperature		3.1
Seasonal Efficiency High temperature	%	120
Cooling Data		
Cooling Capacity (EN14511) ³	kW	127
Total Power input (EN14511) ³	kW	42.5
EER (EN14511) ³	W/W	2.99
Nominal flow rate	m ³ /h	21.63
Pressure drop across the heat pump	kPa	21.1
Design air flow rate	m ³ /h	55698
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)	88
Sound pressure level (10m)	dB(A)	56
Minimum water content in the user circuit	litre	750
Electrical Data		
Power supply	V/Ph/Hz	400/3+N/50
Maximum input power	kW	70
Maximum input current standard unit	A	114
Peak input current standard unit	A	228
Peak input current unit with soft start option fitted	A	172
Fuse rating (delayed)	A	200
Fans		
Type		Axial EC
Number of fans (standard unit)	n ^o	3

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LAHP-1454HTS			Heating OUT							Max Outlet
Water Delivery Temperature			35C	40C	45C	50C	55C	60C	63C	
Source air temperature	-10	Heat Output (KW)	85.5	85.7	85.2	84.6	83.9	82.9	81.9	63°C
		Efficiency COP	2.4	2.2	2	1.8	1.6	1.47	1.37	
	-8	Heat Output (KW)	89.8	90	89.9	90.1	88.5	88.1	97.1	63°C
		Efficiency COP	2.5	2.3	2.1	1.92	1.7	1.54	1.44	
	-6	Heat Output (KW)	94	94.1	94.2	94	93.4	92.7	92.8	63°C
		Efficiency COP	2.6	2.4	2.2	2	1.8	1.6	1.52	
	-4	Heat Output (KW)	98.4	98.4	98.6	98.6	98.7	98.2	99.9	63°C
		Efficiency COP	2.8	2.5	2.3	2.1	1.9	1.7	1.62	
	-2	Heat Output (KW)	107	107	107	108	108	109	110	63°C
		Efficiency COP	3	2.7	2.5	2.3	2	1.9	1.8	
	0	Heat Output (KW)	116	116	117	118	118	120	121	63°C
		Efficiency COP	3.2	2.9	2.7	2.4	2.2	2	1.9	
	2	Heat Output (KW)	124	125	127	127	129	130	132	63°C
		Efficiency COP	3.5	3.2	2.9	2.6	2.4	2.2	2.1	
	4	Heat Output (KW)	133	135	136	138	139	141	142	63°C
		Efficiency COP	3.7	3.4	3.09	2.8	2.6	2.4	2.2	
	6	Heat Output (KW)	142	144	145	147	149	151	152	63°C
		Efficiency COP	4	3.7	3.3	3.02	2.8	2.5	2.4	
	7	Heat Output (KW)	146	146	148	150	152	154	155	63°C
		Efficiency COP	4.1	3.7	3.4	3.1	2.8	2.6	2.4	
8	Heat Output (KW)	148	149	150	152	154	156	157	63°C	
	Efficiency COP	4.2	3.8	3.5	3.1	2.9	2.6	2.5		
10	Heat Output (KW)	154	155	156	157	159	161	163	63°C	
	Efficiency COP	4.4	4	3.6	3.3	3	2.7	2.6		
15	Heat Output (KW)	168	168	169	170	172	174	175	63°C	
	Efficiency COP	5	4.5	4	3.6	3.3	2.9	2.8		
20	Heat Output (KW)	183	182	183	183	185	187	188	63°C	
	Efficiency COP	5.5	4.9	4.4	3.9	3.5	3.2	3		
25	Heat Output (KW)	200	199	198	199	200	202	203	63°C	
	Efficiency COP	6	5.4	4.8	4.3	3.8	3.5	3.3		

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			
252HTS	91.1	82.3	76.2	74.7	73.6	68.2	64.8	55.7	91.9	82	50
302HTS	91.1	82.3	76.2	74.7	73.6	68.2	64.8	55.7	91.9	83	51
432HTS	92.1	83.3	77.2	75.7	74.6	69.2	65.8	56.7	92.9	84	52
492HTS	93.1	84.3	79.2	76.7	75.6	70.2	66.8	57.7	93.9	84	52
602HTS	93.1	84.3	79.2	76.7	75.6	70.2	66.8	57.7	93.9	83	51
752HTS	93.1	84.3	79.2	76.7	75.6	70.2	66.8	57.7	93.9	84	52
852HTS	93.1	84.3	79.2	76.7	75.6	70.2	66.8	57.7	93.9	84	52
1002HTS	93.1	84.3	79.2	76.7	75.6	70.2	66.8	57.7	93.9	84	52
1202HTS	93.1	84.3	79.2	76.7	75.6	70.2	66.8	57.7	93.9	87	55
1454HTS	100.1	91.3	85.2	83.7	82.6	77.2	73.8	64.7	100.9	88	56
1654HTS	100.1	91.3	85.2	83.7	82.6	77.2	73.8	64.7	100.9	89	57
1854HTS	101.1	92.3	86.2	84.7	83.6	78.2	74.8	65.7	101.9	88	56
2154HTS	102.1	93.3	87.2	85.7	84.6	79.2	75.8	66.7	102.9	89	57

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