

TECHNICAL PRODUCT SUBMITTAL

AMICUS LAHP-1002HTS STANDARD AIR SOURCE HEAT PUMP

Data	Unit	Model LAHP-1002HTS
Heating Data		
Heating Capacity (EN14511) ¹	kW	88.4
Total Power input (EN14511) ¹	kW	20.8
COP (EN14511) ¹	W/W	4.25
Nominal flow rate	m ³ /h	15.52
Pressure drop across the heat pump	kPa	47.3
Design air flow rate	m ³ /h	29829
EcoDesign data ²		
Energy Label Rating Low temperature		A+
SCOP Low Temperature		3.69
Seasonal Efficiency Low temperature	%	145
Energy Label Rating High temperature		A+
SCOP High Temperature		3.1
Seasonal Efficiency High temperature	%	121
Cooling Data		
Cooling Capacity (EN14511) ³	kW	78
Total Power input (EN14511) ³	kW	25.1
EER (EN14511) ³	W/W	3.11
Nominal flow rate	m ³ /h	13.34
Pressure drop across the heat pump	kPa	32.8
Design air flow rate	m ³ /h	30665
General data		
Refrigerant		R410A
Compressor Type		E.V.I. Scroll
Number of Compressors		2
Number of Circuits		1
Capacity steps		2
Minimum capacity step	%	50
Sound power level	dB(A)	84
Sound pressure level (10m)	dB(A)	52
Minimum water content in the user circuit	litre	890
Electrical Data		
Power supply	V/Ph/Hz	400/3+N/50
Maximum input power	kW	36
Maximum input current standard unit	A	74.5
Peak input current standard unit	A	216
Peak input current unit with soft start option fitted	A	143
Fuse rating (delayed)	A	160
Fans		
Type		Axial EC
Number of fans (standard unit)	n°	3

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LAHP-1002HTS			Heating OUT							Max Outlet
Water Delivery Temperature			35C	40C	45C	50C	55C	60C	63C	
Source air temperature	-10	Heat Output (KW)	50.9	51.2	51.2	51.2	51.2	N/A	N/A	55°C
		Efficiency COP	2.5	2.3	2.1	1.9	1.7	N/A	N/A	
	-8	Heat Output (KW)	53.7	53.9	54.1	54.2	54.2	N/A	N/A	55°C
		Efficiency COP	2.6	2.4	2.2	2.0	1.8	N/A	N/A	
	-6	Heat Output (KW)	56.4	56.4	56.4	56.7	56.9	56.6	N/A	60°C
		Efficiency COP	2.7	2.5	2.3	2.1	1.9	1.7	N/A	
	-4	Heat Output (KW)	59.0	59.1	59.2	59.6	59.4	59.5	N/A	60°C
		Efficiency COP	2.9	2.6	2.4	2.2	2.0	1.8	N/A	
	-2	Heat Output (KW)	62.6	62.8	63.3	63.7	64.0	64.0	64.3	63°C
		Efficiency COP	3.0	2.7	2.5	2.3	2.1	1.9	1.8	
	0	Heat Output (KW)	68.1	68.4	68.9	69.5	70.3	70.3	70.9	63°C
		Efficiency COP	3.3	3.0	2.7	2.5	2.3	2.1	2.0	
	2	Heat Output (KW)	73.6	74.0	74.6	75.4	76.3	77.1	77.3	63°C
		Efficiency COP	3.5	3.2	2.9	2.7	2.5	2.3	2.1	
	4	Heat Output (KW)	79.4	79.9	80.6	81.5	82.5	83.6	84.0	63°C
		Efficiency COP	3.8	3.4	3.1	2.9	2.6	2.4	2.3	
	6	Heat Output (KW)	85.5	86.1	87.0	88.0	89.2	90.5	91.2	63°C
		Efficiency COP	4.0	3.7	3.4	3.1	2.8	2.6	2.5	
	7	Heat Output (KW)	88.8	89.4	90.3	91.4	92.6	93.7	94.4	63°C
		Efficiency COP	4.2	3.8	3.5	3.2	2.9	2.7	2.6	
	8	Heat Output (KW)	91.1	91.5	92.3	93.2	94.4	95.5	96.2	63°C
		Efficiency COP	4.3	3.9	3.6	3.3	3.0	2.7	2.6	
	10	Heat Output (KW)	95.6	95.5	96.1	97.0	98.1	99.2	99.9	63°C
		Efficiency COP	4.5	4.1	3.7	3.4	3.1	2.8	2.7	
	15	Heat Output (KW)	107.0	107.0	107.0	107.0	108.0	109.0	110.0	63°C
		Efficiency COP	5.0	4.5	4.1	3.7	3.4	3.1	2.9	
	20	Heat Output (KW)	120.0	119.0	118.0	118.0	119.0	119.0	120.0	63°C
		Efficiency COP	5.5	4.9	4.5	4.0	3.7	3.3	3.2	
	25	Heat Output (KW)	135.0	133.0	132.0	131.0	130.0	131.0	131.0	63°C
		Efficiency COP	6.1	5.5	4.9	4.5	4.0	3.7	3.5	

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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