

TECHNICAL PRODUCT SUBMITTAL

AMICUS LAHP-5004LTS AIR SOURCE HEAT PUMP

Heating Data ¹		
Heating Capacity (EN14511)	kW	463.7
Total Power input (EN14511)	kW	115.1
COP (EN14511)	W/W	4.03
Nominal flow rate	m ³ /h	81.29
Pressure drop across the heat pump	kPa	67.7
Design air flow rate	m ³ /h	145040
EcoDesign data ²		
Energy Label Rating Low temperature		A++
SCOP Low Temperature		3.86
Seasonal Efficiency Low temperature	%	151.5
Cooling Data (RV units only) ³		
Cooling Capacity (EN14511)	kW	413
Total Power input (EN14511)	kW	151
EER (EN14511)	W/W	2.74
Nominal flow rate	m ³ /h	70.9
Pressure drop across the heat pump	kPa	55.7
Design air flow rate	m ³ /h	142561
General		
Refrigerant type		R410A
Compressor Type		Scroll
Number of Compressors		4
Number of Circuits		2
Capacity steps		4
Minimum capacity step	%	25
Electrical Data		
Power supply	V/Ph/Hz	400/3+N/50
Maximum input power	kW	196
Maximum input current standard unit	A (per phase)	356
Peak input current standard unit	A (per phase)	681
Peak input current unit with soft start option fitted	A (per phase)	518
Fuse rating (delayed)	A	400
Optional Hydraulic kit input power	kW	7.5
Optional Hydraulic kit maximum input current	A	14.1
Fans		
Fan type (standard unit)		Axial
Number of fans (standard unit)		8
Air flow rate for design	m ³ /h	151628
Sound power level ²	dB(A)	92
Sound pressure level ³	dB(A)	60

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LAHP-5004LTS			Heating OUT						Max outlet
Water Delivery Temperature		35C	40C	45C	50C	55C	59C		
performance data	-10	Heat Output (KW)	250	246	240	N/A	N/A	N/A	45
		Efficiency COP	2.2	2.0	1.8	N/A	N/A	N/A	
	-7	Heat Output (KW)	273	267	260	257	N/A	N/A	48
		Efficiency COP	2.4	2.2	1.9	1.8	N/A	N/A	
	-5	Heat Output (KW)	288	281	274	267	N/A	N/A	50
		Efficiency COP	2.6	2.3	2.0	1.8	N/A	N/A	
	-4	Heat Output (KW)	296	288	281	273	N/A	N/A	50
		Efficiency COP	2.6	2.3	2.1	1.8	N/A	N/A	
	-3	Heat Output (KW)	305	296	288	282	N/A	N/A	50
		Efficiency COP	2.7	2.4	2.1	1.9	N/A	N/A	
	-2	Heat Output (KW)	315	308	303	298	294	N/A	55
		Efficiency COP	2.8	2.5	2.2	2.0	1.9	N/A	
	0	Heat Output (KW)	346	341	334	329	324	N/A	53
		Efficiency COP	3.0	2.7	2.5	2.2	2.0	N/A	
	5	Heat Output (KW)	428	423	418	411	407	405	57
		Efficiency COP	3.7	3.4	3.0	2.7	2.5	2.4	
	10	Heat Output (KW)	506	496	487	476	465	458	59
		Efficiency COP	4.5	4.0	3.7	3.3	2.9	2.7	
15	Heat Output (KW)	560	548	536	524	512	502	59	
	Efficiency COP	5.0	4.6	4.0	3.6	3.2	3.0		
20	Heat Output (KW)	617	600	585	569	555	545	59	
	Efficiency COP	5.6	5.0	4.5	4.0	3.5	3.2		

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 band (Hz)								Lw		Lp
	63	125	250	500	1K	2K	4K	8K	Db	dB(A)	dB(A)
	dB	dB	dB	dB	dB	dB	dB	dB			
242	86.1	77.3	71.2	69.7	68.6	63.2	59.8	50.7	86.9	78	46
292	87.1	78.3	72.2	70.7	69.6	64.2	60.8	51.7	87.9	79	47
412	87.1	78.3	72.2	70.7	69.6	64.2	60.8	51.7	87.9	74	42
432	88.1	79.3	73.2	71.7	70.6	65.2	61.8	52.7	88.9	80	48
492	89.1	80.3	74.2	72.7	71.6	66.2	62.8	53.7	89.9	79	47
602	89.1	80.3	74.2	72.7	71.6	66.2	62.8	53.7	89.9	80	48
702	90.1	81.3	75.2	73.7	72.6	67.2	63.8	54.7	90.9	81	49
802	91.1	82.3	76.2	74.7	73.6	68.2	64.8	55.7	91.9	82	50
902	95.1	86.3	80.2	78.7	77.6	72.2	68.8	59.7	95.9	86	54
1002	96.1	87.3	81.2	79.7	78.6	73.2	69.8	60.7	96.9	87	55
1202	98.1	89.3	83.2	81.7	80.6	75.2	71.8	62.7	98.9	88	56
1402	99.1	90.3	84.2	82.7	81.6	76.2	72.8	63.7	99.9	89	58
1602	100.1	91.3	85.2	83.7	82.6	77.2	73.8	64.7	100.9	89	57
1802	100.1	91.3	85.2	83.7	82.6	77.2	73.8	64.7	100.9	90	58
2002	100.1	91.3	85.2	83.7	82.6	77.2	73.8	64.7	100.9	90	58
2302	102.1	93.3	87.2	85.7	84.6	79.2	75.8	66.7	102.9	92	60
2502	104.1	95.3	89.2	87.7	85.6	81.2	77.8	68.7	104.9	93	61
2504	101.1	92.3	86.2	84.7	83.6	78.2	74.8	65.7	101.9	91	59
3004	102.1	93.3	87.2	85.7	84.6	79.2	75.8	66.7	102.9	92	60
3204	103.1	94.3	88.2	86.7	85.6	80.2	76.8	67.7	103.9	92	60
3504	103.1	94.3	88.2	86.7	85.6	80.2	76.8	67.7	103.9	93	61
4004	103.1	94.3	88.2	86.7	85.6	80.2	76.8	67.7	103.9	94	64
4504	105.1	96.3	90.2	88.7	87.6	82.2	78.8	69.7	105.9	96	64
5004	105.1	96.3	90.2	88.7	87.6	82.2	78.8	69.7	105.9	94	62

Lw: sound power level according to ISO 3744

Lp: sound pressure level at 10mtrs from unit in free field conditions, direction factor Q=2 according to ISO 3744

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