

TECHNICAL PRODUCT SUBMITTAL

AMICUS LAHP-4504LTS AIR SOURCE HEAT PUMP

Heating Data ¹		
Heating Capacity (EN14511)	kW	407
Total Power input (EN14511)	kW	104.1
COP (EN14511)	W/W	3.91
Nominal flow rate	m ³ /h	69.63
Pressure drop across the heat pump	kPa	60.4
Design air flow rate	m ³ /h	151853
EcoDesign data ²		
Energy Label Rating Low temperature		A++
SCOP Low Temperature		3.87
Seasonal Efficiency Low temperature	%	151.9
Cooling Data (RV units only) ³		
Cooling Capacity (EN14511)	kW	366
Total Power input (EN14511)	kW	135
EER (EN14511)	W/W	2.71
Nominal flow rate	m ³ /h	62.73
Pressure drop across the heat pump	kPa	52.4
Design air flow rate	m ³ /h	149393
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	178
Maximum input current standard unit	A	321
Peak input current standard unit	A	646
Peak input current unit with soft start option fitted	A	483
Fuse rating (delayed)	A	400
Optional Hydraulic kit input power	kW	5.5
Optional Hydraulic kit maximum input current	A	10.4
Fans		
Fan type (standard unit)		Axial
Number of fans (standard unit)		8
Air flow rate for design	m ³ /h	157442
Sound power level ²	dB(A)	92
Sound pressure level ³	dB(A)	60

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LAHP-4504LTS			Heating OUT						Max outlet
Water Delivery Temperature			35C	40C	45C	50C	55C	59C	
performance data	-10	Heat Output (KW)	213	209	206	N/A	N/A	N/A	45
		Efficiency COP	2.1	1.9	1.7	N/A	N/A	N/A	
	-7	Heat Output (KW)	232	228	223	N/A	N/A	N/A	45
		Efficiency COP	2.3	2.0	1.8	N/A	N/A	N/A	
	-5	Heat Output (KW)	245	239	234	232	N/A	N/A	48
		Efficiency COP	2.4	2.1	1.9	1.8	N/A	N/A	
	-4	Heat Output (KW)	257	250	245	240	N/A	N/A	50
		Efficiency COP	2.5	2.3	2.0	1.8	N/A	N/A	
	-3	Heat Output (KW)	263	256	250	245	N/A	N/A	50
		Efficiency COP	2.6	2.3	2	1.8	N/A	N/A	
	-2	Heat Output (KW)	266	260	256	253	252	N/A	53
		Efficiency COP	2.6	2.3	2.0	1.9	1.8	N/A	
	0	Heat Output (KW)	293	289	283	280	278	N/A	55
		Efficiency COP	2.8	2.6	2.3	2.0	1.9	N/A	
	5	Heat Output (KW)	364	360	356	351	349	348	57
		Efficiency COP	3.5	3.2	2.9	2.6	2.4	2.3	
	10	Heat Output (KW)	437	429	421	412	405	398	59
		Efficiency COP	4.4	4.0	3.6	3.2	2.6	2.6	
	15	Heat Output (KW)	486	475	465	455	445	437	59
		Efficiency COP	5.0	4.5	4.0	3.6	3.2	2.9	
20	Heat Output (KW)	535	522	509	496	484	476	59	
	Efficiency COP	5.6	5.0	4.4	3.9	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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