

TECHNICAL PRODUCT SUBMITTAL

AMICUS LAHP-5004LT AIR SOURCE HEAT PUMP

EFFICIENCY DATA -Part L2		
Heating Capacity (EN14511) external air+7C 30/35 flow	kW	463.7
Total Power input (EN14511) external air+7C 30/35 flow	kW	115.1
COP (EN14511) external air+7C 30/35 flow	W/W	4.03
EFFICIENCY DATA -ErP and Energy Label		
Energy Label Rating Low temperature		A++
SCOP Low Temperature		3.86
Seasonal Efficiency Low temperature	%	151.5
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
WATER		
Flow/Return connections	inch	5"
Nominal flow rate	L/sec	29.5
Pressure drop across the heat exchanger	kPa	
Minimum water content in the user circuit	litre	2420
BREEAM DATA		
Total refrigerant charge	kg	97.7
Operational life	Years	20
Global warming potential		2088

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LAHP-5004LT			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		

Optional Hydraulic kit Pump details		
Model	LAHP5004LT	
Nominal Input power	kW	7.5
Nominal Input current	A	14.1
Nominal water flow rate	l/h	81470
Total head available at the pump	kPa	218
Available head for system pipework	kPa	135
Power supply	V/ph/Hz	400/3/50

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