

TECHNICAL PRODUCT SUBMITTAL

AMICUS LAHP-4004LT AIR SOURCE HEAT PUMP

EFFICIENCY DATA -Part L2		
Heating Capacity (EN14511) external air+7C 30/35 flow	kW	364.9
Total Power input (EN14511) external air+7C 30/35 flow	kW	88.8
COP (EN14511) external air+7C 30/35 flow	W/W	4.11
EFFICIENCY DATA -ErP and Energy Label		
Energy Label Rating Low temperature		A++
SCOP Low Temperature		3.89
Seasonal Efficiency Low temperature	%	152.4
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	156
Maximum input current standard unit	A (per phase)	280
Peak input current standard unit	A (per phase)	524
Peak input current unit with soft start option fitted	A (per phase)	400
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)		6
Air flow rate for design	m ³ /h	126205
Sound power level ²	dB(A)	90
Sound pressure level ³	dB(A)	58
WATER		
Flow/Return connections	inch	5"
Nominal flow rate	L/sec	23.24
Pressure drop across the heat exchanger	kPa	77
Minimum water content in the user circuit	litre	1970
BREEAM DATA		
Total refrigerant charge	kg	79.9
Operational life	Years	20
Global warming potential		2088

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LAHP-4004LT		Heating OUT						Max outlet	
Water Delivery Temperature		35C	40C	45C	50C	55C	59C		
performance data	-10	Heat Output (KW)	198.0	195.0	194.0	N/A	N/A	N/A	45c
		Efficiency COP	2.2	2.0	1.8	N/A	N/A	N/A	
	-7	Heat Output (KW)	215.0	212.0	209.0	N/A	N/A	N/A	45c
		Efficiency COP	2.4	2.2	1.9	N/A	N/A	N/A	
	-5	Heat Output (KW)	227.0	223.0	219.0	216.0	N/A	N/A	50c
		Efficiency COP	2.5	2.3	2.0	1.8	N/A	N/A	
	-4	Heat Output (KW)	233.0	229.0	224.0	220.0	N/A	N/A	50c
		Efficiency COP	2.6	2.3	2.1	1.8	N/A	N/A	
	-3	Heat Output (KW)	240.0	235	231	228.0	N/A	N/A	50c
		Efficiency COP	2.7	2.4	2.14	1.9	N/A	N/A	
	-2	Heat Output (KW)	248.0	245.0	242.0	239.0	N/A	N/A	50c
		Efficiency COP	2.8	2.5	2.2	2.0	N/A	N/A	
	0	Heat Output (KW)	275.0	269.0	266.0	264.0	262.0	N/A	55c
		Efficiency COP	3.1	2.8	2.5	2.2	2.0	N/A	
	5	Heat Output (KW)	339.0	335.0	331.0	328.0	326.0	N/A	55c
		Efficiency COP	3.8	3.4	3.1	2.8	2.5	N/A	
	10	Heat Output (KW)	400.0	393.0	385.0	378.0	371.0	367.0	59c
		Efficiency COP	4.6	4.2	3.7	3.3	2.9	2.7	
15	Heat Output (KW)	444.0	435.0	426.0	416.0	408.0	402	59c	
	Efficiency COP	5.2	4.7	4.2	3.7	3.3	2.98		
20	Heat Output (KW)	488.0	477.0	465.0	454.0	445.0	438.0	59c	
	Efficiency COP	5.8	5.2	4.6	4.0	3.6	3.2		

Optional Hydraulic kit Pump details		
Model	LAHP-4004LT	
Nominal Input power	kW	5.5
Nominal Input current	A	10.4
Nominal water flow rate	l/h	63690
Total head available at the pump	kPa	210
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