

TECHNICAL PRODUCT SUBMITTAL

AMICUS LAHP-1002LT AIR SOURCE HEAT PUMP

EFFICIENCY DATA -Part L2		
Heating Capacity (EN14511) external air+7C 30/35 flow	kW	104.9
Total Power input (EN14511) external air+7C 30/35 flow	kW	24.5
COP (EN14511) external air+7C 30/35 flow	W/W	4.29
EFFICIENCY DATA -ErP and Energy Label		
Energy Label Rating Low temperature		A++
SCOP Low Temperature		3.85
Seasonal Efficiency Low temperature	%	150.8
GENERAL		
Refrigerant type		R410A
Compressor Type		Scroll
Number of Compressors		2
Number of Circuits		1
Capacity steps		2
Minimum capacity step	%	50
ELECTRICAL DATA		
Power supply	V/Ph/Hz	400/3+N/50
Maximum input power	kW	42
Maximum input current standard unit	A (per phase)	78
Peak input current standard unit	A (per phase)	263
Peak input current unit with soft start option fitted	A (per phase)	148
Fuse rating (delayed)	A	160
Optional Hydraulic kit input power	kW	1.5
Optional Hydraulic kit maximum input current	A	3.43
FANS		
Fan type (standard unit)		Axial
Number of fans (standard unit)		2
Air flow rate for design	m ³ /h	44369
Sound power level ²	dB(A)	83
Sound pressure level ³	dB(A)	51
WATER		
Flow/Return connections	inch	2"
Nominal flow rate	L/sec	6.64
Pressure drop across the heat exchanger	kPa	71
Minimum water content in the user circuit	litre	1120
BREEAM DATA		
Total refrigerant charge	kg	22.5
Operational life	Years	20
Global warming potential		2088

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LAHP-1002LT			Heating OUT						
Water Delivery Temperature			35C	40C	45C	50C	55C	59C	Max outlet
performance data	-10	Heat Output (KW)	54.7	53.6	52.3	N/A	N/A	N/A	45
		Efficiency COP	2.2	2.0	1.7	N/A	N/A	N/A	
	-7	Heat Output (KW)	59.6	58.1	56.6	54.4	N/A	N/A	50
		Efficiency COP	2.4	2.1	1.9	1.7	N/A	N/A	
	-5	Heat Output (KW)	63.0	61.3	59.8	58.3	N/A	N/A	50
		Efficiency COP	2.5	2.2	2.0	1.7	N/A	N/A	
	-3	Heat Output (KW)	68.8	67.1	66.1	65.0	N/A	N/A	50
		Efficiency COP	2.8	2.4	2.2	2.0	N/A	N/A	
	-2	Heat Output (KW)	71.7	69.6	69.0	68.3	N/A	N/A	50
		Efficiency COP	2.9	2.6	2.3	2.1	N/A	N/A	
	0	Heat Output (KW)	78.9	77.6	76.1	75.4	74.6	N/A	55
		Efficiency COP	3.1	2.8	2.5	2.3	2.0	N/A	
	5	Heat Output (KW)	97.9	96.0	94.9	94.0	92.1	92.4	58
		Efficiency COP	3.9	3.5	3.2	2.9	2.6	2.39	
	10	Heat Output (KW)	112.0	110.0	108.0	106.0	104.0	103	59
		Efficiency COP	4.7	4.2	3.8	3.3	3.0	2.7	
15	Heat Output (KW)	125.0	122.0	119.0	117.0	114.0	113	59	
	Efficiency COP	5.3	4.7	4.2	3.7	3.3	3		
20	Heat Output (KW)	139.0	135.0	131.0	128.0	125.0	123	59	
	Efficiency COP	5.9	5.2	4.6	4.1	3.6	3.25		

Optional Hydraulic kit Pump details			
Model			LAHP1002LT
Nominal Input power		kW	1.5
Nominal Input current		A	3.43
Nominal water flow rate		l/h	18090
Total head available at the pump		kPa	172
Available head for system pipework		kPa	106
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