

# TECHNICAL PRODUCT SUBMITTAL

## AMICUS LAHP-402LT AIR SOURCE HEAT PUMP

EFFICIENCY DATA -Part L2		
Heating Capacity (EN14511) external air+7C 30/35 flow	kW	37.3
Total Power input (EN14511) external air+7C 30/35 flow	kW	8.8
COP (EN14511) external air+7C 30/35 flow	W/W	4.23
EFFICIENCY DATA -ErP and Energy Label		
Energy Label Rating Low temperature		A++
SCOP Low Temperature		3.85
Seasonal Efficiency Low temperature	%	150.9
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	17
Maximum input current standard unit	A (per phase)	28
Peak input current standard unit	A (per phase)	81
Peak input current unit with soft start option fitted	A (per phase)	55
Fuse rating (delayed)	A	50
Optional Hydraulic kit input power	kW	0.55
Optional Hydraulic kit maximum input current	A	1.58
FANS		
Fan type (standard unit)		Axial
Number of fans (standard unit)		2
Air flow rate for design	m <sup>3</sup> /h	19084
Sound power level <sup>2</sup>	dB(A)	74
Sound pressure level <sup>3</sup>	dB(A)	42
WATER		
Flow/Return connections	inch	1½"
Nominal flow rate	L/sec	2.4
Pressure drop across the heat exchanger	kPa	55
Minimum water content in the user circuit	litre	400
BREEAM DATA		
Total refrigerant charge	kg	10.6
Operational life	Years	20
Global warming potential		2088

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LAHP-402LT			Heating OUT						
Water Delivery Temperature			35C	40C	45C	50C	55C	59C	Max outlet
<b>performance data</b>	<b>-10</b>	Heat Output (KW)	19.8	19.3	N/A	N/A	N/A	N/A	40°C
		Efficiency COP	2.1	1.8	N/A	N/A	N/A	N/A	
	<b>-7</b>	Heat Output (KW)	21.3	20.7	N/A	N/A	N/A	N/A	40°C
		Efficiency COP	2.2	2.0	N/A	N/A	N/A	N/A	
	<b>-5</b>	Heat Output (KW)	22.7	22.1	21.6	N/A	N/A	N/A	45°C
		Efficiency COP	2.4	2.1	1.9	N/A	N/A	N/A	
	<b>-4</b>	Heat Output (KW)	23.9	23.2	22.8	N/A	N/A	N/A	45°C
		Efficiency COP	2.5	2.2	2.0	N/A	N/A	N/A	
	<b>-3</b>	Heat Output (KW)	25.0	24.4	24	N/A	N/A	N/A	45°C
		Efficiency COP	2.7	2.35	2.07	N/A	N/A	N/A	
	<b>-2</b>	Heat Output (KW)	26.3	25.6	25.2	25.0	N/A	N/A	50°C
		Efficiency COP	2.8	2.5	2.2	2.0	N/A	N/A	
	<b>0</b>	Heat Output (KW)	28.7	28.2	27.7	27.6	N/A	N/A	50°C
		Efficiency COP	3.1	2.7	2.4	2.2	N/A	N/A	
	<b>5</b>	Heat Output (KW)	35.4	34.5	33.9	33.4	33.1	N/A	55°C
		Efficiency COP	3.9	3.5	3.1	2.7	2.4	N/A	
	<b>10</b>	Heat Output (KW)	39.9	38.8	37.8	37.1	36.7	36.5	59°C
		Efficiency COP	4.6	4.1	3.6	3.1	2.8	2.52	
	<b>15</b>	Heat Output (KW)	44.7	43.3	42.2	41.3	40.6	40.2	59°C
		Efficiency COP	5.3	4.7	4.1	3.6	3.1	2.83	
<b>20</b>	Heat Output (KW)	50.1	48.3	46.9	45.7	44.8	44.4	59°C	
	Efficiency COP	6.1	5.3	4.6	4.0	3.5	3.15		

Optional Hydraulic kit Pump details		
Model	LAHP402LT	
Nominal Input power	kW	0.55
Nominal Input current	A	1.58
Nominal water flow rate	l/h	6425
Total head available at the pump	kPa	155
Available head for system pipework	kPa	101
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](http://www.lochinvar.ltd.uk)