

# TECHNICAL PRODUCT SUBMITTAL

## AMICUS LAHP-1402LT AIR SOURCE HEAT PUMP

EFFICIENCY DATA -Part L2		
Heating Capacity (EN14511) external air+7C 30/35 flow	kW	137.1
Total Power input (EN14511) external air+7C 30/35 flow	kW	30.9
COP (EN14511) external air+7C 30/35 flow	W/W	4.44
EFFICIENCY DATA -ErP and Energy Label		
Energy Label Rating Low temperature		A++
SCOP Low Temperature		3.85
Seasonal Efficiency Low temperature	%	151
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	53
Maximum input current standard unit	A (per phase)	95
Peak input current standard unit	A (per phase)	319
Peak input current unit with soft start option fitted	A (per phase)	190
Fuse rating (delayed)	A	200
Optional Hydraulic kit input power	kW	1.85
Optional Hydraulic kit maximum input current	A	4.53
FANS		
Fan type (standard unit)		Axial
Number of fans (standard unit)		3
Air flow rate for design	m <sup>3</sup> /h	66800
Sound power level <sup>2</sup>	dB(A)	86
Sound pressure level <sup>3</sup>	dB(A)	54
WATER		
Flow/Return connections	inch	2½"
Nominal flow rate	L/sec	8.68
Pressure drop across the heat exchanger	kPa	64
Minimum water content in the user circuit	litre	1440
BREEAM DATA		
Total refrigerant charge	kg	34.4
Operational life	Years	20
Global warming potential		2088

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LAHP-1402LT		Heating OUT						Max outlet	
Water Delivery Temperature		35C	40C	45C	50C	55C	59C		
<b>performance data</b>	<b>-10</b>	Heat Output (KW)	71.9	70.1	68.4	N/A	N/A	N/A	45c
		Efficiency COP	2.2	2.0	1.8	N/A	N/A	N/A	
	<b>-7</b>	Heat Output (KW)	78.3	76.2	74.1	72.4	N/A	N/A	50c
		Efficiency COP	2.4	2.2	1.9	1.7	N/A	N/A	
	<b>-5</b>	Heat Output (KW)	83.0	80.5	79.0	77.3	N/A	N/A	50c
		Efficiency COP	2.6	2.3	2.0	1.8	N/A	N/A	
	<b>-4</b>	Heat Output (KW)	87.0	85.3	83.2	81.5	N/A	N/A	50c
		Efficiency COP	2.7	2.4	2.2	1.9	N/A	N/A	
	<b>-3</b>	Heat Output (KW)	91.3	89.5	87.4	86.0	N/A	N/A	50c
		Efficiency COP	2.8	2.54	2.26	2.0	N/A	N/A	
	<b>-2</b>	Heat Output (KW)	95.8	94.1	91.9	90.7	89.6	N/A	55c
		Efficiency COP	3.0	2.7	2.4	2.1	1.9	N/A	
	<b>0</b>	Heat Output (KW)	105.0	103.0	102.0	100.0	99.3	N/A	55c
		Efficiency COP	3.2	2.9	2.6	2.3	2.2	N/A	
	<b>5</b>	Heat Output (KW)	130.0	128.0	126.0	123.0	122.0	120.0	59c
		Efficiency COP	4.1	3.7	3.3	3.0	2.7	2.4	
	<b>10</b>	Heat Output (KW)	147.0	144.0	140.0	138.0	135.0	134.0	59c
		Efficiency COP	4.9	4.4	3.9	3.5	3.1	2.8	
<b>15</b>	Heat Output (KW)	165.0	162.0	158.0	154.0	150.0	148	59c	
	Efficiency COP	5.6	5.0	4.4	3.9	3.4	3.12		
<b>20</b>	Heat Output (KW)	182.0	177.0	172.0	167.0	163.0	160	59c	
	Efficiency COP	6.2	5.5	4.8	4.2	3.7	3.38		

Optional Hydraulic kit Pump details			
Model			LAHP1402LT
Nominal Input power	kW		1.85
Nominal Input current	A		4.53
Nominal water flow rate	l/h		23650
Total head available at the pump	kPa		170
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](http://www.lochinvar.ltd.uk)