

TECHNICAL PRODUCT SUBMITTAL

AMICUS LAHP-452LT AIR SOURCE HEAT PUMP

EFFICIENCY DATA -Part L2		
Heating Capacity (EN14511) external air+7C 30/35 flow	kW	47.1
Total Power input (EN14511) external air+7C 30/35 flow	kW	11.5
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		3.85
Seasonal Efficiency Low temperature	%	151.1
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	21
Maximum input current standard unit	A (per phase)	36
Peak input current standard unit	A (per phase)	115
Peak input current unit with soft start option fitted	A (per phase)	77
Fuse rating (delayed)	A	100
Optional Hydraulic kit input power	kW	0.9
Optional Hydraulic kit maximum input current	A	2.37
FANS		
Fan type (standard unit)		Axial
Number of fans (standard unit)		2
Air flow rate for design	m ³ /h	18056
Sound power level ²	dB(A)	75
Sound pressure level ³	dB(A)	43
WATER		
Flow/Return connections	inch	1½"
Nominal flow rate	L/sec	2.91
Pressure drop across the heat exchanger	kPa	51
Minimum water content in the user circuit	litre	480
BREEAM DATA		
Total refrigerant charge	kg	10.9
Operational life	Years	20
Global warming potential		2088

TECHNICAL PRODUCT SUBMITTAL

AMICUS LAHP-452LT AIR SOURCE HEAT PUMP

LAHP-452LT			Heating OUT						
Water Delivery Temperature			35C	40C	45C	50C	55C	59C	Max outlet
performance data	-10	Heat Output (KW)	27.3	26.6	N/A	N/A	N/A	N/A	40°C
		Efficiency COP	2.1	2.0	N/A	N/A	N/A	N/A	
	-7	Heat Output (KW)	29.0	28.3	N/A	N/A	N/A	N/A	40°C
		Efficiency COP	2.3	2.1	N/A	N/A	N/A	N/A	
	-5	Heat Output (KW)	30.2	29.5	N/A	N/A	N/A	N/A	40°C
		Efficiency COP	2.4	2.2	N/A	N/A	N/A	N/A	
	-4	Heat Output (KW)	30.9	30.1	29.5	N/A	N/A	N/A	45°C
		Efficiency COP	2.5	2.3	2.1	N/A	N/A	N/A	
	-3	Heat Output (KW)	31.9	31.2	30.8	N/A	N/A	N/A	45°C
		Efficiency COP	2.6	2.36	2.15	N/A	N/A	N/A	
	-2	Heat Output (KW)	33.3	32.7	32.2	N/A	N/A	N/A	45°C
		Efficiency COP	2.7	2.5	2.3	N/A	N/A	N/A	
	0	Heat Output (KW)	36.2	35.8	35.3	35.6	N/A	N/A	50°C
		Efficiency COP	3.0	2.7	2.5	2.4	N/A	N/A	
	5	Heat Output (KW)	43.9	43.6	43.3	43.4	43.3	N/A	55°C
		Efficiency COP	3.8	3.4	3.1	2.8	2.6	N/A	
	10	Heat Output (KW)	50.0	49.3	48.8	48.4	48.3	48.3	59°C
		Efficiency COP	4.5	4.0	3.6	3.2	2.9	2.68	
15	Heat Output (KW)	55.5	54.5	53.8	53.1	52.7	52.6	59°C	
	Efficiency COP	5.1	4.5	4.1	3.6	3.2	2.92		
20	Heat Output (KW)	60.9	59.6	58.6	57.8	57.5	57.1	59°C	
	Efficiency COP	5.7	5.0	4.4	3.9	3.5	3.19		

Optional Hydraulic kit Pump details			
Model			LAHP452LT
Nominal Input power		kW	0.9
Nominal Input current		A	2.37
Nominal water flow rate		l/h	8125
Total head available at the pump		kPa	190
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