

TECHNICAL PRODUCT SUBMITTAL

AMICUS LAHP-4504LT AIR SOURCE HEAT PUMP

EFFICIENCY DATA -Part L2		
Heating Capacity (EN14511) external air+7C 30/35 flow	kW	407
Total Power input (EN14511) external air+7C 30/35 flow	kW	104.1
COP (EN14511) external air+7C 30/35 flow	W/W	3.91
EFFICIENCY DATA -ErP and Energy Label		
Energy Label Rating Low temperature		A++
SCOP Low Temperature		3.87
Seasonal Efficiency Low temperature	%	151.9
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	178
Maximum input current standard unit	A (per phase)	321
Peak input current standard unit	A (per phase)	646
Peak input current unit with soft start option fitted	A (per phase)	483
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)		8
Air flow rate for design	m ³ /h	157442
Sound power level ²	dB(A)	92
Sound pressure level ³	dB(A)	60
WATER		
Flow/Return connections	inch	5"
Nominal flow rate	L/sec	25.58
Pressure drop across the heat exchanger	kPa	83
Minimum water content in the user circuit	litre	2240
BREEAM DATA		
Total refrigerant charge	kg	81.1
Operational life	Years	20
Global warming potential		2088

TECHNICAL PRODUCT SUBMITTAL

AMICUS LAHP-4504LT AIR SOURCE HEAT PUMP

LAHP-4504LT			Heating OUT					Max outlet	
Water Delivery Temperature		35C	40C	45C	50C	55C	59C		
performance data	-10	Heat Output (KW)	213	209	206	N/A	N/A	N/A	45
		Efficiency COP	2.1	1.9	1.7	N/A	N/A	N/A	
	-7	Heat Output (KW)	232	228	223	N/A	N/A	N/A	45
		Efficiency COP	2.3	2.0	1.8	N/A	N/A	N/A	
	-5	Heat Output (KW)	245	239	234	232	N/A	N/A	48
		Efficiency COP	2.4	2.1	1.9	1.8	N/A	N/A	
	-4	Heat Output (KW)	257	250	245	240	N/A	N/A	50
		Efficiency COP	2.5	2.3	2.0	1.8	N/A	N/A	
	-3	Heat Output (KW)	263	256	250	245	N/A	N/A	50
		Efficiency COP	2.6	2.3	2	1.8	N/A	N/A	
	-2	Heat Output (KW)	266	260	256	253	252	N/A	53
		Efficiency COP	2.6	2.3	2.0	1.9	1.8	N/A	
	0	Heat Output (KW)	293	289	283	280	278	N/A	55
		Efficiency COP	2.8	2.6	2.3	2.0	1.9	N/A	
	5	Heat Output (KW)	364	360	356	351	349	348	57
		Efficiency COP	3.5	3.2	2.9	2.6	2.4	2.3	
10	Heat Output (KW)	437	429	421	412	405	398	59	
	Efficiency COP	4.4	4.0	3.6	3.2	2.6	2.6		
15	Heat Output (KW)	486	475	465	455	445	437	59	
	Efficiency COP	5.0	4.5	4.0	3.6	3.2	2.9		
20	Heat Output (KW)	535	522	509	496	484	476	59	
	Efficiency COP	5.6	5.0	4.4	3.9	3.5	3.2		

Optional Hydraulic kit Pump details		
Model		LAHP4504LT
Nominal Input power	kW	5.5
Nominal Input current	A	10.4
Nominal water flow rate	l/h	71890
Total head available at the pump	kPa	190
Available head for system pipework	kPa	113
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