

TECHNICAL PRODUCT SUBMITTAL

AMICUS LAHP-3504LT AIR SOURCE HEAT PUMP

EFFICIENCY DATA -Part L2		
Heating Capacity (EN14511) external air+7C 30/35 flow	kW	339
Total Power input (EN14511) external air+7C 30/35 flow	kW	83.7
COP (EN14511) external air+7C 30/35 flow	W/W	4.05
EFFICIENCY DATA -ErP and Energy Label		
Energy Label Rating Low temperature		A++
SCOP Low Temperature		3.91
Seasonal Efficiency Low temperature	%	153.5
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	140
Maximum input current standard unit	A (per phase)	246
Peak input current standard unit	A (per phase)	490
Peak input current unit with soft start option fitted	A (per phase)	366
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)		6
Air flow rate for design	m ³ /h	115547
Sound power level ²	dB(A)	90
Sound pressure level ³	dB(A)	58
WATER		
Flow/Return connections	inch	4"
Nominal flow rate	L/sec	21.25
Pressure drop across the heat exchanger	kPa	75
Minimum water content in the user circuit	litre	1700
BREEAM DATA		
Total refrigerant charge	kg	68
Operational life	Years	20
Global warming potential		2088

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LAHP-3504LT		Heating OUT						Max outlet	
Water Delivery Temperature		35C	40C	45C	50C	55C	59C		
performance data	-10	Heat Output (KW)	180.0	176.0	174.0	N/A	N/A	N/A	45c
		Efficiency COP	2.1	1.9	1.7	N/A	N/A	N/A	
	-7	Heat Output (KW)	195.0	192.0	188.0	N/A	N/A	N/A	45c
		Efficiency COP	2.3	2.1	1.8	N/A	N/A	N/A	
	-5	Heat Output (KW)	206.0	202.0	198.0	193.0	N/A	N/A	50c
		Efficiency COP	2.4	2.2	1.9	1.7	N/A	N/A	
	-4	Heat Output (KW)	212.0	207.0	202.0	198.0	N/A	N/A	50c
		Efficiency COP	2.5	2.2	2.0	1.7	N/A	N/A	
	-3	Heat Output (KW)	217.0	214	211	208.0	N/A	N/A	50c
		Efficiency COP	2.5	2.28	2.05	1.8	N/A	N/A	
	-2	Heat Output (KW)	230.0	225.0	222.0	220.0	N/A	N/A	50c
		Efficiency COP	2.7	2.4	2.2	1.9	N/A	N/A	
	0	Heat Output (KW)	252.0	247.0	244.0	243.0	240.0	N/A	55c
		Efficiency COP	3.0	2.7	2.4	2.2	1.9	N/A	
	5	Heat Output (KW)	313.0	309.0	305.0	301.0	299.0	N/A	55c
		Efficiency COP	3.7	3.3	3.0	2.7	2.5	N/A	
	10	Heat Output (KW)	364.0	357.0	350.0	343.0	337.0	334.0	59c
		Efficiency COP	4.4	4.0	3.6	3.2	2.8	2.6	
15	Heat Output (KW)	405.0	397.0	387.0	378.0	371.0	366	59c	
	Efficiency COP	5.0	4.5	4.0	3.6	3.2	2.88		
20	Heat Output (KW)	444.0	434.0	423.0	412.0	402.0	398.0	59c	
	Efficiency COP	5.5	4.9	4.4	3.9	3.4	3.1		

Optional Hydraulic kit Pump details		
Model	LAHP3504LT	
Nominal Input power	kW	5.5
Nominal Input current	A	10.4
Nominal water flow rate	l/h	57250
Total head available at the pump	kPa	225
Available head for system pipework	kPa	148
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