

TECHNICAL PRODUCT SUBMITTAL

AMICUS LAHP-1654HTS STANDARD AIR SOURCE HEAT PUMP

Data	Unit	Model
		LAHP-1654HTS
Heating Data		
Heating Capacity (EN14511) ¹	kW	164
Total Power input (EN14511) ¹	kW	39.1
COP (EN14511) ¹	W/W	4.19
Nominal flow rate	m ³ /h	28.23
Pressure drop across the heat pump	kPa	43.8
Design air flow rate	m ³ /h	54037
EcoDesign data ²		
Energy Label Rating Low temperature		A++
SCOP Low Temperature		3.88
Seasonal Efficiency Low temperature	%	152
Energy Label Rating High temperature		A+
SCOP High Temperature		3.15
Seasonal Efficiency High temperature	%	125
Cooling Data		
Cooling Capacity (EN14511) ³	kW	143
Total Power input (EN14511) ³	kW	50.4
EER (EN14511) ³	W/W	2.84
Nominal flow rate	m ³ /h	24.63
Pressure drop across the heat pump	kPa	32.1
Design air flow rate	m ³ /h	57079
General data		
Refrigerant		R410A
Compressor Type		E.V.I. Scroll
Number of Compressors		4
Number of Circuits		2
Capacity steps		4
Minimum capacity step	%	25
Sound power level	dB(A)	89
Sound pressure level (10m)	dB(A)	57
Minimum water content in the user circuit	litre	820
Electrical Data		
Power supply	V/Ph/Hz	400/3+N/50
Maximum input power	kW	80
Maximum input current standard unit	A	140
Peak input current standard unit	A	281
Peak input current unit with soft start option fitted	A	212
Fuse rating (delayed)	A	200
Fans		
Type		Axial EC
Number of fans (standard unit)	n ^o	3

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LAHP-1654HTS		Heating OUT							Max Outlet	
Water Delivery Temperature		35C	40C	45C	50C	55C	60C	63C		
Source air temperature	-10	Heat Output (KW)	93.4	93.5	94.1	94.8	95.8	104	99	63°C
		Efficiency COP	2.4	2.2	2.0	1.8	1.7	1.52	1.46	
	-8	Heat Output (KW)	98.6	98.9	99.1	99.7	101.0	103	104	63°C
		Efficiency COP	2.5	2.3	2.1	1.9	1.7	1.61	1.52	
	-6	Heat Output (KW)	104.0	104.0	104.0	104.0	105.0	106.0	108	63°C
		Efficiency COP	2.6	2.4	2.2	2.0	1.8	1.6	1.58	
	-4	Heat Output (KW)	109.0	109.0	109.0	109.0	110.0	111.0	113	63°C
		Efficiency COP	2.7	2.5	2.3	2.1	1.9	1.7	1.64	
	-2	Heat Output (KW)	116.0	117.0	117.0	118.0	119.0	120.0	121.0	63°C
		Efficiency COP	2.9	2.7	2.4	2.2	2.0	1.8	1.7	
	0	Heat Output (KW)	127.0	127.0	128.0	129.0	130.0	132.0	133.0	63°C
		Efficiency COP	3.1	2.9	2.6	2.4	2.2	2.0	1.9	
	2	Heat Output (KW)	137.0	138.0	138.0	139.0	141.0	143.0	145.0	63°C
		Efficiency COP	3.3	3.1	2.8	2.6	2.3	2.1	2.0	
	4	Heat Output (KW)	148.0	148.0	149.0	151.0	153.0	156.0	157.0	63°C
		Efficiency COP	3.6	3.3	3.0	2.7	2.5	2.3	2.2	
	6	Heat Output (KW)	158.0	160.0	160.0	162.0	164.0	166.0	168.0	63°C
		Efficiency COP	3.8	3.5	3.2	2.9	2.7	2.4	2.3	
	7	Heat Output (KW)	163.0	165.0	166.0	167.0	169.0	171.0	173.0	63°C
		Efficiency COP	4.0	3.6	3.3	3.0	2.7	2.5	2.4	
8	Heat Output (KW)	166.0	168.0	169.0	170.0	172.0	174.0	176.0	63°C	
	Efficiency COP	4.0	3.7	3.4	3.1	2.8	2.5	2.4		
10	Heat Output (KW)	173.0	174.0	175.0	177.0	179.0	180.0	182.0	63°C	
	Efficiency COP	4.2	3.9	3.5	3.2	2.9	2.6	2.5		
15	Heat Output (KW)	189.0	190.0	191.0	193.0	194.0	196.0	197.0	63°C	
	Efficiency COP	4.7	4.2	3.8	3.5	3.1	2.8	2.7		
20	Heat Output (KW)	205.0	207.0	208.0	209.0	210.0	212.0	213.0	63°C	
	Efficiency COP	5.2	4.7	4.2	3.8	3.4	3.1	2.9		
25	Heat Output (KW)	221.0	222.0	223.0	224.0	226.0	228.0	229.0	63°C	
	Efficiency COP	5.7	5.0	4.5	4.0	3.6	3.3	3.1		

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

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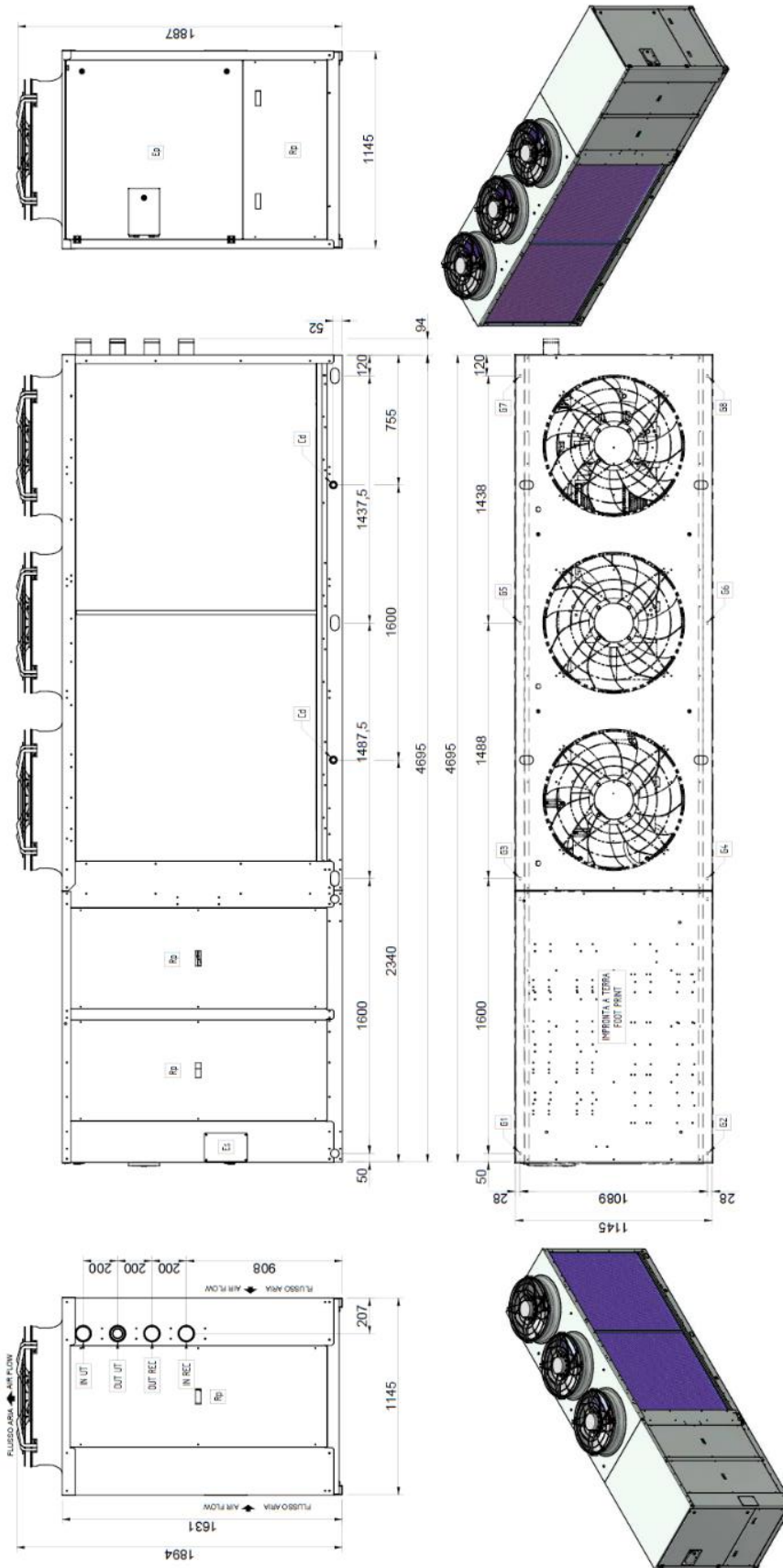


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model	octave bands (hz)								lw		lp
	63	125	250	500	1k	2k	4k	8k	db	db	db
	db	db	db	db	db	db	db	db			
252HTS	91.1	82.3	76.2	74.7	73.6	68.2	64.8	55.7	91.9	82	50
302HTS	91.1	82.3	76.2	74.7	73.6	68.2	64.8	55.7	91.9	83	51
432HTS	92.1	83.3	77.2	75.7	74.6	69.2	65.8	56.7	92.9	84	52
492HTS	93.1	84.3	79.2	76.7	75.6	70.2	66.8	57.7	93.9	84	52
602HTS	93.1	84.3	79.2	76.7	75.6	70.2	66.8	57.7	93.9	83	51
752HTS	93.1	84.3	79.2	76.7	75.6	70.2	66.8	57.7	93.9	84	52
852HTS	93.1	84.3	79.2	76.7	75.6	70.2	66.8	57.7	93.9	84	52
1002HTS	93.1	84.3	79.2	76.7	75.6	70.2	66.8	57.7	93.9	84	52
1202HTS	93.1	84.3	79.2	76.7	75.6	70.2	66.8	57.7	93.9	87	55
1454HTS	100.1	91.3	85.2	83.7	82.6	77.2	73.8	64.7	100.9	88	56
1654HTS	100.1	91.3	85.2	83.7	82.6	77.2	73.8	64.7	100.9	89	57
1854HTS	101.1	92.3	86.2	84.7	83.6	78.2	74.8	65.7	101.9	88	56
2154HTS	102.1	93.3	87.2	85.7	84.6	79.2	75.8	66.7	102.9	89	57

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Rp	PANNELLO ASPORTABILE - REMOVABLE PANEL
Ep	QUADRO ELETTRICO - ELECTRICAL PANEL
Es	INGRESSO ALIMENTAZIONE ELETTRICA - POWER SUPPLY INLET
Cd	SCARICO CONDENSA - CONDENSATE DRAIN
IN UT	INGRESSO ACQUA UTENTE - USER WATER INLET
OUT UT	USCITA ACQUA UTENTE - USER WATER OUTLET
IN REC	INGRESSO ACQUA RECUPERO - RECOVERY WATER INLET
OUT REC	USCITA ACQUA RECUPERO - RECOVERY WATER OUTLET
	Ø 1" GAS F
	Ø 3" VICTAULIC
	Ø 3" VICTAULIC
	Ø 3" VICTAULIC
	Ø 3" VICTAULIC