

TECHNICAL PRODUCT SUBMITTAL

AMICUS LAHP-852HTXL LOW NOISE AIR SOURCE HEAT PUMP

| Data | Unit | Model |
|---|-------------------|---------------------|
| | | LAHP-852HTXL |
| Heating Data | | |
| Heating Capacity (EN14511) ¹ | kW | 80 |
| Total Power input (EN14511) ¹ | kW | 18.4 |
| COP (EN14511) ¹ | W/W | 4.35 |
| Nominal flow rate | m ³ /h | 13.90 |
| Pressure drop across the heat pump | kPa | 34.5 |
| Design air flow rate | m ³ /h | 28087 |
| EcoDesign data ² | | |
| Energy Label Rating Low temperature | | A++ |
| SCOP Low Temperature | | 3.83 |
| Seasonal Efficiency Low temperature | % | 150 |
| Energy Label Rating High temperature | | A+ |
| SCOP High Temperature | | 3.13 |
| Seasonal Efficiency High temperature | % | 122 |
| Cooling Data (RV units only) | | |
| Cooling Capacity (EN14511) ³ | kW | 71.9 |
| Total Power input (EN14511) ³ | kW | 23.8 |
| EER (EN14511) ³ | W/W | 3.02 |
| Nominal flow rate | m ³ /h | 12.29 |
| Pressure drop across the heat pump | kPa | 25.3 |
| Design air flow rate | m ³ /h | 30312 |
| General data | | |
| Refrigerant | | R410A |
| Compressor Type | | E.V.I. Scroll |
| Number of Compressors | | 2 |
| Number of Circuits | | 1 |
| Capacity steps | | 2 |
| Minimum capacity step | % | 50 |
| Sound power level | dB(A) | 74 |
| Sound pressure level (10m) | dB(A) | 42 |
| Minimum water content in the user circuit | litre | 750 |
| Electrical Data | | |
| Power supply | V/Ph/Hz | 400/3+N/50 |
| Maximum input power | kW | 39.3 |
| Maximum input current standard unit | A | 71.9 |
| Peak input current standard unit | A | 213 |
| Peak input current unit with soft start option fitted | A | 143 |
| Fuse rating (delayed) | A | 125 |
| Fans | | |
| Type | | Axial AC |
| Number of fans (standard unit) | n ^o | 2 |

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| LAHP-852HTXL | | | Heating OUT | | | | | | | Max Outlet |
|----------------------------|------------------|------------------|-------------|-------|-------|-------|-------|-------|------|------------|
| Water Delivery Temperature | | | 35C | 40C | 45C | 50C | 55C | 60C | 63C | |
| Source air temperature | -10 | Heat Output (KW) | 46.3 | 46.4 | 46.6 | 46.9 | 47.3 | 47.9 | 48.7 | 63°C |
| | | Efficiency COP | 2.6 | 2.4 | 2.2 | 2.0 | 1.8 | 1.6 | 1.5 | |
| | -8 | Heat Output (KW) | 48.6 | 48.8 | 49.0 | 49.1 | 49.5 | 50.2 | 50.6 | 63°C |
| | | Efficiency COP | 2.7 | 2.5 | 2.3 | 2.0 | 1.9 | 1.7 | 1.6 | |
| | -6 | Heat Output (KW) | 51.0 | 51.1 | 51.4 | 51.4 | 51.8 | 52.4 | 53.0 | 63°C |
| | | Efficiency COP | 2.8 | 2.6 | 2.4 | 2.1 | 1.9 | 1.7 | 1.7 | |
| | -4 | Heat Output (KW) | 53.9 | 54.1 | 54.4 | 54.7 | 55.2 | 55.8 | 56.7 | 63°C |
| | | Efficiency COP | 3.0 | 2.7 | 2.5 | 2.2 | 2.0 | 1.8 | 1.8 | |
| | -2 | Heat Output (KW) | 58.9 | 59.0 | 59.3 | 59.8 | 60.5 | 61.1 | 62.1 | 63°C |
| | | Efficiency COP | 3.2 | 2.9 | 2.7 | 2.4 | 2.2 | 2.0 | 1.9 | |
| | 0 | Heat Output (KW) | 63.9 | 64.4 | 64.6 | 65.1 | 66.0 | 67.1 | 67.8 | 63°C |
| | | Efficiency COP | 3.5 | 3.2 | 2.9 | 2.6 | 2.4 | 2.2 | 2.1 | |
| | 2 | Heat Output (KW) | 69.0 | 69.5 | 70.1 | 70.5 | 71.4 | 72.7 | 73.7 | 63°C |
| | | Efficiency COP | 3.7 | 3.4 | 3.1 | 2.8 | 2.6 | 2.3 | 2.2 | |
| | 4 | Heat Output (KW) | 73.9 | 74.6 | 75.3 | 76.2 | 76.8 | 78.2 | 79.2 | 63°C |
| | | Efficiency COP | 4.0 | 3.6 | 3.3 | 3.0 | 2.7 | 2.5 | 2.4 | |
| | 6 | Heat Output (KW) | 78.7 | 79.2 | 80.0 | 80.7 | 81.7 | 82.8 | 83.5 | 63°C |
| | | Efficiency COP | 4.3 | 3.9 | 3.5 | 3.2 | 2.9 | 2.6 | 2.5 | |
| | 7 | Heat Output (KW) | 80.2 | 80.8 | 81.3 | 82.2 | 83.1 | 84.3 | 85.1 | 63°C |
| | | Efficiency COP | 4.3 | 3.9 | 3.6 | 3.2 | 2.9 | 2.7 | 2.5 | |
| 8 | Heat Output (KW) | 81.7 | 82.4 | 83.0 | 83.7 | 84.6 | 85.7 | 86.6 | 63°C | |
| | Efficiency COP | 4.4 | 4.0 | 3.6 | 3.3 | 3.0 | 2.7 | 2.6 | | |
| 10 | Heat Output (KW) | 84.8 | 85.4 | 86.1 | 86.9 | 87.8 | 88.8 | 89.6 | 63°C | |
| | Efficiency COP | 4.6 | 4.2 | 3.8 | 3.4 | 3.1 | 2.8 | 2.6 | | |
| 15 | Heat Output (KW) | 93.0 | 93.6 | 94.2 | 94.7 | 95.4 | 96.4 | 97.1 | 63°C | |
| | Efficiency COP | 5.1 | 4.6 | 4.1 | 3.7 | 3.3 | 3.0 | 2.8 | | |
| 20 | Heat Output (KW) | 99.5 | 100.0 | 101.0 | 101.0 | 102.0 | 103.0 | 103.0 | 63°C | |
| | Efficiency COP | 5.6 | 5.0 | 4.5 | 4.0 | 3.5 | 3.2 | 3.0 | | |
| 25 | Heat Output (KW) | 106.0 | 107.0 | 108.0 | 109.0 | 109.0 | 110.0 | 111.0 | 63°C | |
| | Efficiency COP | 6.0 | 5.4 | 4.8 | 4.2 | 3.8 | 3.4 | 3.2 | | |

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

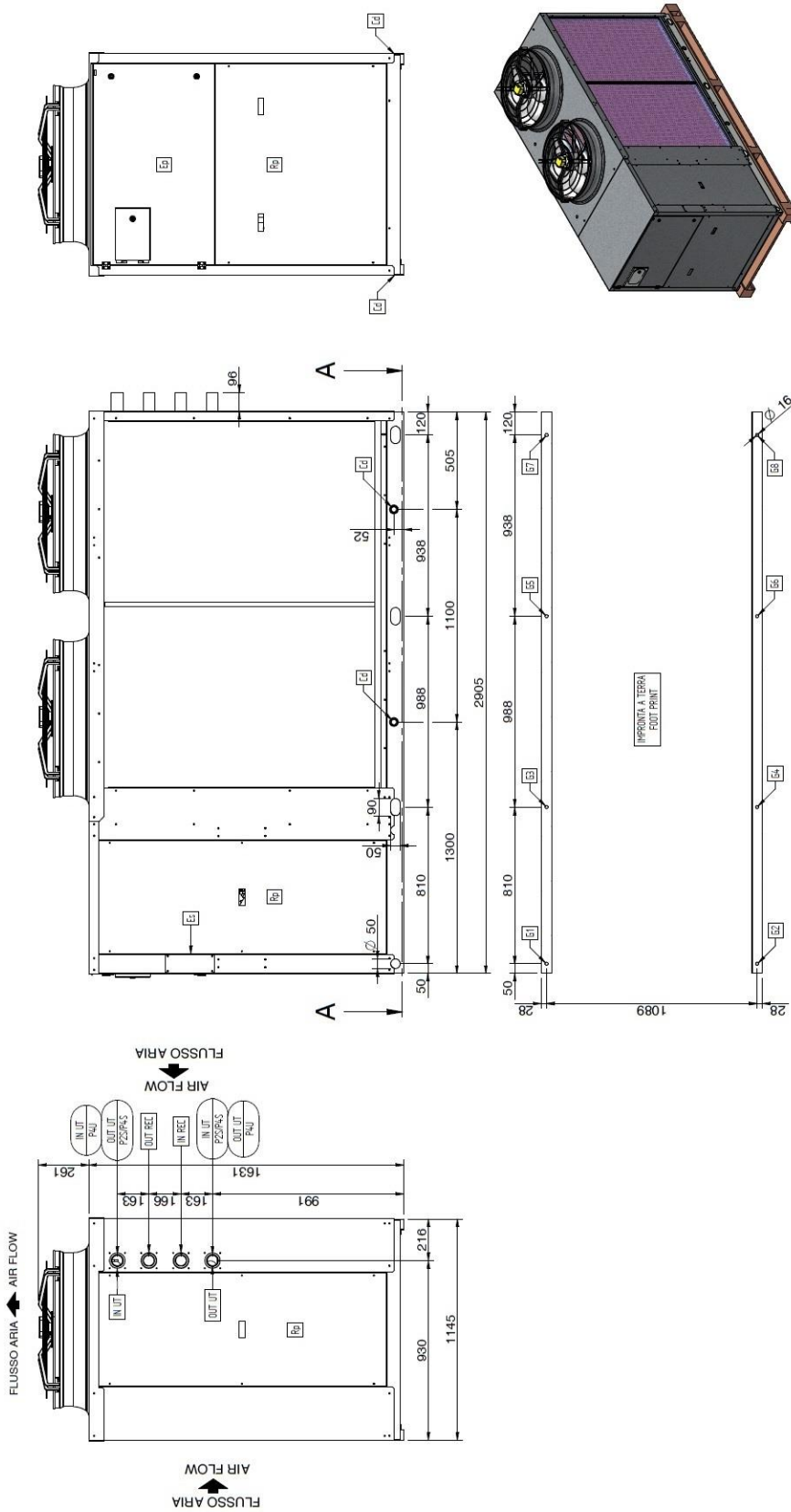
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| model | octave bands (hz) | | | | | | | | lw | | lp |
|----------|-------------------|------|------|------|------|------|------|------|------|----|----|
| | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k | db | db | db |
| | db | db | db | db | db | db | db | db | | | |
| 252HTXL | 83.1 | 74.3 | 68.2 | 66.7 | 65.6 | 60.2 | 56.8 | 47.7 | 83.9 | 70 | 42 |
| 302HTXL | 83.1 | 74.3 | 68.2 | 66.7 | 65.6 | 60.2 | 56.8 | 47.7 | 83.9 | 70 | 42 |
| 432HTXL | 85.1 | 76.3 | 70.2 | 68.7 | 67.6 | 62.2 | 58.8 | 49.7 | 85.9 | 72 | 44 |
| 492HTXL | 85.1 | 76.3 | 70.2 | 68.7 | 67.6 | 62.2 | 58.8 | 49.7 | 85.9 | 72 | 44 |
| 602HTXL | 87.1 | 78.3 | 72.2 | 70.7 | 69.6 | 64.2 | 60.8 | 51.7 | 87.9 | 74 | 46 |
| 752HTXL | 87.1 | 78.3 | 72.2 | 70.7 | 69.6 | 64.2 | 60.8 | 51.7 | 87.9 | 74 | 46 |
| 852HTXL | 87.1 | 78.3 | 72.2 | 70.7 | 69.6 | 64.2 | 60.8 | 51.7 | 87.9 | 74 | 46 |
| 1002HTXL | 88.1 | 79.3 | 73.2 | 71.7 | 70.6 | 65.2 | 61.8 | 52.7 | 88.9 | 75 | 43 |
| 1202HTXL | 88.1 | 79.3 | 73.2 | 71.7 | 70.6 | 65.2 | 61.8 | 52.7 | 88.9 | 75 | 43 |
| 1454HTXL | 92.1 | 83.3 | 77.2 | 75.7 | 74.6 | 69.2 | 65.8 | 56.7 | 92.9 | 79 | 47 |
| 1654HTXL | 92.1 | 83.3 | 77.2 | 75.7 | 74.6 | 69.2 | 65.8 | 56.7 | 92.9 | 79 | 47 |
| 1854HTXL | 93.1 | 84.3 | 78.2 | 76.7 | 75.6 | 70.2 | 66.8 | 57.7 | 93.9 | 80 | 48 |
| 2154HTXL | 93.1 | 84.3 | 78.2 | 76.7 | 75.6 | 70.2 | 66.8 | 57.7 | 93.9 | 80 | 48 |

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| | | |
|---------|---|------------------|
| Rp | 852-1292 HAE L5XL | 502-852 HE NN |
| Ep | PANNELLO ASPORTABILE - REMOVABLE PANEL | |
| Es | QUADRO ELETTRICO - ELECTRICAL PANEL | |
| Cd | INGRESSO ALIMENTAZIONE ELETTRICA - POWER SUPPLY INLET | |
| IN UT | SCARICO CONDENSA - CONDENSATE DRAIN | Ø 1" GAS F |
| OUT UT | INGRESSO ACQUA UTENTE - USER WATER INLET | Ø 2" GAS M |
| IN REC | USCITA ACQUA UTENTE - USER WATER OUTLET | Ø 2" GAS M |
| OUT REC | INGRESSO ACQUA RECUPERO - RECOVERY WATER INLET | Ø 2" GAS M |
| | USCITA ACQUA RECUPERO - RECOVERY WATER OUTLET | Ø 2" GAS M |