

TECHNICAL PRODUCT SUBMITTAL

AMICUS LAHP-592HTS STANDARD AIR SOURCE HEAT PUMP

| Data | Unit | Model |
|---|-------------------|--------------------|
| | | LAHP-592HTS |
| Heating Data | | |
| Heating Capacity (EN14511) ¹ | kW | 55.4 |
| Total Power input (EN14511) ¹ | kW | 13.8 |
| COP (EN14511) ¹ | W/W | 4.01 |
| Nominal flow rate | m ³ /h | 9.80 |
| Pressure drop across the heat pump | kPa | 48.5 |
| Design air flow rate | m ³ /h | 18613 |
| EcoDesign data ² | | |
| Energy Label Rating Low temperature | | A+ |
| SCOP Low Temperature | | 3.59 |
| Seasonal Efficiency Low temperature | % | 141 |
| Energy Label Rating High temperature | | A++ |
| SCOP High Temperature | | 3.02 |
| Seasonal Efficiency High temperature | % | 118 |
| Cooling Data | | |
| Cooling Capacity (EN14511) ³ | kW | 54 |
| Total Power input (EN14511) ³ | kW | 19.1 |
| EER (EN14511) ³ | W/W | 2.83 |
| Nominal flow rate | m ³ /h | 9.22 |
| Pressure drop across the heat pump | kPa | 37.8 |
| Design air flow rate | m ³ /h | 18080 |
| 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) | 83 |
| Sound pressure level (10m) | dB(A) | 51 |
| Minimum water content in the user circuit | litre | 550 |
| Electrical Data | | |
| Power supply | V/Ph/Hz | 400/3+N/50 |
| Maximum input power | kW | 28.9 |
| Maximum input current standard unit | A | 48.5 |
| Peak input current standard unit | A | 146 |
| Peak input current unit with soft start option fitted | A | 94 |
| Fuse rating (delayed) | A | 100 |
| Fans | | |
| Type | | Axial EC |
| Number of fans (standard unit) | n ^o | 2 |

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| LAHP-592HTS | | Heating OUT | | | | | | | Max Outlet | |
|----------------------------|------------------|------------------|------|------|------|------|------|------|------------|------|
| Water Delivery Temperature | | 35C | 40C | 45C | 50C | 55C | 60C | 63C | | |
| Source air temperature | -10 | Heat Output (KW) | 32.5 | 32.7 | 32.7 | 33.0 | 32.8 | N/A | N/A | 55°c |
| | | Efficiency COP | 2.5 | 2.2 | 2.0 | 1.8 | 1.6 | N/A | N/A | |
| | -8 | Heat Output (KW) | 34.2 | 34.5 | 34.6 | 34.6 | 34.6 | N/A | N/A | 55°c |
| | | Efficiency COP | 2.6 | 2.3 | 2.1 | 1.9 | 1.7 | N/A | N/A | |
| | -6 | Heat Output (KW) | 36.1 | 36.3 | 36.6 | 36.5 | 36.3 | 36.0 | N/A | 60°c |
| | | Efficiency COP | 2.7 | 2.4 | 2.2 | 2.0 | 1.8 | 1.6 | N/A | |
| | -4 | Heat Output (KW) | 37.6 | 37.9 | 38.2 | 38.3 | 38.1 | 37.8 | N/A | 60°c |
| | | Efficiency COP | 2.8 | 2.5 | 2.3 | 2.1 | 1.9 | 1.7 | N/A | |
| | -2 | Heat Output (KW) | 39.3 | 39.6 | 39.9 | 40.0 | 39.8 | 39.6 | 39.4 | 63°c |
| | | Efficiency COP | 3.0 | 2.7 | 2.4 | 2.2 | 1.9 | 1.8 | 1.7 | |
| | 0 | Heat Output (KW) | 42.1 | 42.5 | 42.8 | 43.1 | 43.3 | 43.1 | 43.2 | 63°c |
| | | Efficiency COP | 3.2 | 2.8 | 2.6 | 2.3 | 2.1 | 1.9 | 1.8 | |
| | 2 | Heat Output (KW) | 45.4 | 45.8 | 46.2 | 46.7 | 47.1 | 47.2 | 47.1 | 63°c |
| | | Efficiency COP | 3.4 | 3.1 | 2.8 | 2.5 | 2.3 | 2.1 | 2.0 | |
| | 4 | Heat Output (KW) | 49.1 | 49.7 | 50.1 | 50.6 | 51.1 | 51.3 | 51.6 | 63°c |
| | | Efficiency COP | 3.7 | 3.3 | 3.0 | 2.7 | 2.5 | 2.3 | 2.1 | |
| | 6 | Heat Output (KW) | 53.2 | 53.8 | 54.4 | 54.6 | 55.1 | 55.6 | 55.9 | 63°c |
| | | Efficiency COP | 4.0 | 3.6 | 3.2 | 2.9 | 2.7 | 2.4 | 2.3 | |
| | 7 | Heat Output (KW) | 55.2 | 55.8 | 56.4 | 56.7 | 57.3 | 57.8 | 58.1 | 63°c |
| | | Efficiency COP | 4.1 | 3.7 | 3.4 | 3.0 | 2.8 | 2.5 | 2.4 | |
| 8 | Heat Output (KW) | 57.3 | 57.9 | 58.5 | 58.9 | 59.5 | 60.1 | 60.3 | 63°c | |
| | Efficiency COP | 4.2 | 3.8 | 3.5 | 3.1 | 2.9 | 2.6 | 2.5 | | |
| 10 | Heat Output (KW) | 60.4 | 61.0 | 61.6 | 62.2 | 62.7 | 63.2 | 63.4 | 63°c | |
| | Efficiency COP | 4.4 | 4.0 | 3.6 | 3.3 | 3.0 | 2.7 | 2.6 | | |
| 15 | Heat Output (KW) | 67.6 | 67.8 | 68.2 | 68.6 | 69.0 | 69.3 | 69.5 | 63°c | |
| | Efficiency COP | 4.9 | 4.4 | 4.0 | 3.6 | 3.3 | 3.0 | 2.8 | | |
| 20 | Heat Output (KW) | 75.8 | 75.5 | 75.5 | 75.7 | 75.9 | 75.9 | 76.0 | 63°c | |
| | Efficiency COP | 5.3 | 4.8 | 4.4 | 4.0 | 3.6 | 3.3 | 3.1 | | |
| 25 | Heat Output (KW) | 85.2 | 84.4 | 83.9 | 83.5 | 83.3 | 83.2 | 83.1 | 63°c | |
| | Efficiency COP | 5.7 | 5.2 | 4.7 | 4.3 | 3.9 | 3.6 | 3.4 | | |

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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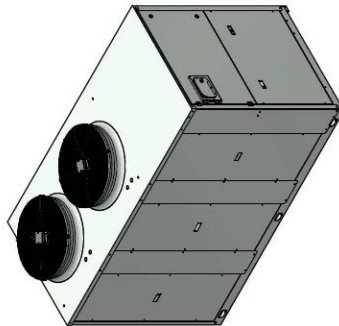
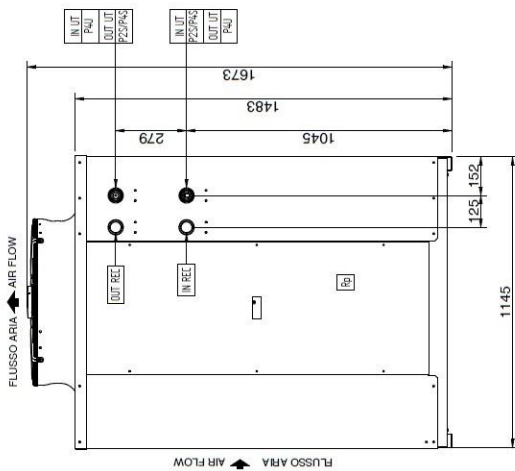
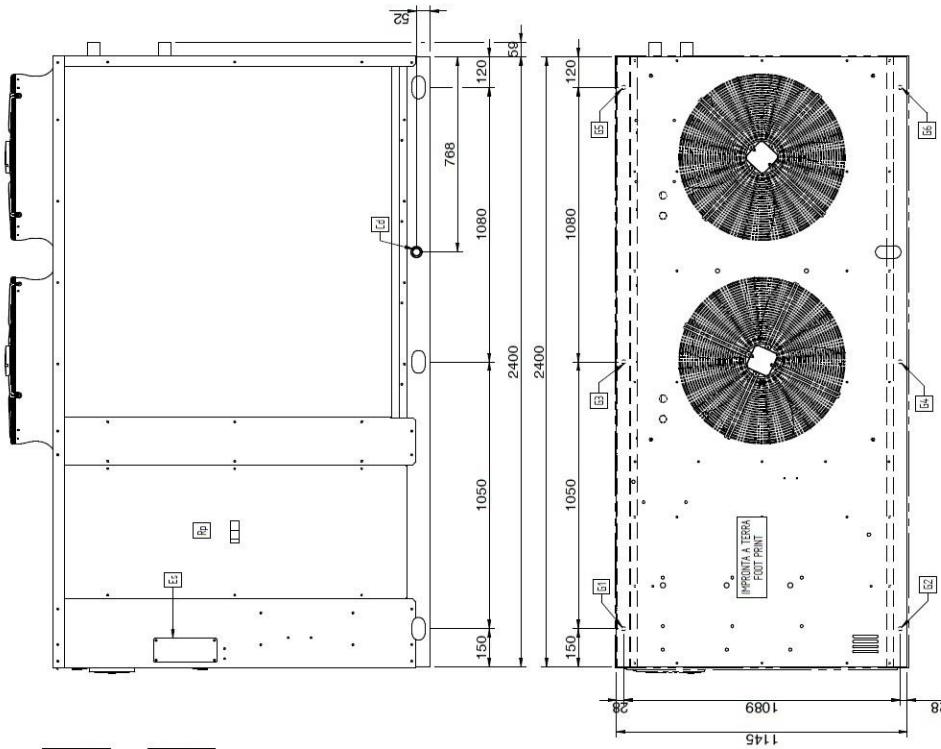
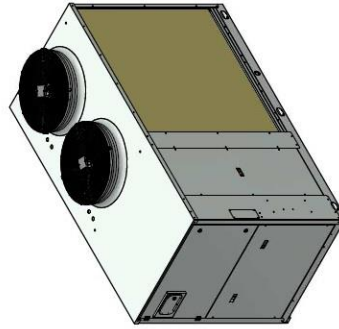
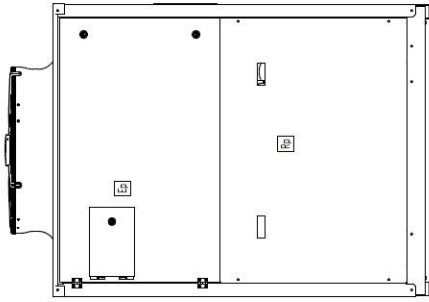


AMICUS LAHP-592HTS STANDARD AIR SOURCE HEAT PUMP

| 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 |
| E5 | 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 1 1/2 GAS M |
| | Ø 1 1/2 GAS M |
| | Ø 1 1/2 GAS M |
| | Ø 1 1/2 GAS M |