

| VWL 55/3 A 230; VVWL 85/3 A 230 V                   |   |  |             |
|---|---|--|-------------|
| English   |   | 1.Stamm 15.12.2016   |             |
| <b>Technical data</b>                               |   |  |             |
| Art.-No.  | VWL 55/3 A 230V (0010019756)<br>Genia Air 5/2 (0010019750)<br>Genia Air 5/2 (0010019752)<br>Genia Air 4/2 (0010019786)<br>Genia Air 5/2 (0010019770)<br>Genia Air 5/2 (0010019774)  | Genia Air 8/2 (0010019783)<br>Genia Air 8/2 (0010019771)<br>Genia Air 8/2 (0010019757)<br>Genia Air 8/2 (0010019775)<br>VWL 85/3 A 230V (0010019759)<br>VWL 85/3 A 230V (0010019765) |             |
| Type  | VWL 55/3 A 230V   | VWL 85/3 A 230V  |             |
| Kind of heat pump                                   | Luft / Wasser Wärmepumpe   Air / Water heat pump  |  |             |
| Application of heat pump                            | Die Wärmepumpen sind ausschließlich im häuslichen Gebrauch als Wärmezeuger für geschlossene Warmwasser-Zentralheizungsanlagen und für die Warmwasserbereitung bestimmt.   The pumps are intended for domestic use as a heat source for closed hot water central heating systems and hot water.  |  |             |
| Country of destination                              | AT - BE - CH - DE - DK - ES - FR - GB - GR - HU - IE -<br>CZ - TR - IT - LU - NL - NO - PT - SE - SI - PL - SK - HR - UA - FI   |  |             |
| <b>Dimensions</b>                                   |   |  |             |
|   | VWL 55/3 A 230V   | VWL 85/3 A 230V  |             |
| Height  | 834   | 975  | mm          |
| Width   | 970   | 1103   | mm          |
| Depth   | 408   | 463  | mm          |
| Weight - without packaging                          | 86  | 102  | kg          |
| <b>Electrical data</b>                              |   |  |             |
| Nominal voltage / rated voltage                     | 1/NP/PE 230V~ 50 Hz   |  |             |
| Optional building earth leakage circuit breaker     | Always use a residual current operated circuit breaker compatible with smoothed DC residual currents and high harmonics, as this unit is equipped with a frequency converter. It would be recommended to install the RCD separately   |  |             |
| Inrush currents                                     | 16  | 16   | A           |
| Nominal current                                     | 16  | 16   | A           |
| Nominal power                                       | 3,68  | 3,68   | kW          |
| Protection class                                    | IP 25   |  |             |
| <b>Hydraulic connection</b>                         |   |  |             |
| Heating flow/ return                                | 1 1/4"  |  |             |
| heat source flow/ return                            | ---   | ---  |             |
| Cold / hot water                                    | ---   | ---  |             |
| central heating water expansion vessel              | ---   | ---  |             |
| <b>Heat source circuit</b>                          |   |  |             |
| min. input temperature heating / DHW                | -15   | -20  | °C          |
| max. input temperature heating                      | 28  |  | °C          |
| min. input temperature DHW                          | 46  |  | °C          |
| min. input temperature cooling                      | 10  |  | °C          |
| max. input temperature cooling                      | 46  |  | °C          |
| Nominal flow rate at A7W35                          | 2000  | 2700   | m³/h        |
| Electrical power / Rated power fan                  | 15...42   |  | W           |
| Kind of fan   | axial   |  |             |
|   | 550   | 550  | rpm         |
| <b>Heating / Cooling / environment circuit</b>      |   |  |             |
| Volume of the heating circuit in the heat pump      | 1,1   | 1,6  | l           |
| Materials of the heating circuit                    | Cu, CuZn-Alloy, Stainless Steel, EPDM, painted FE<br>Heizungswasser nicht mit Frost- oder Korrosionsschutzmitteln anreichern! Enthärten Sie das Heizwasser bei Wasserhärten ab 3,0 mmol/l (16,8° dH) gemäß Richtlinie VDI2035 Blatt 1!   Heating water can not accumulate with frost and corrosion protection products! They soften the hot water at water hardness of 3.0 mmol/l (16.8 ° dH) according to directive VDI 2035 Part 1! |  |             |
| Acceptable water quality                            |   |  |             |
| min. pressure                                       | 0,1 (1)   |  | MPa ( bar ) |
| max. pressure                                       | 0,3 (3)   |  | MPa ( bar ) |
| min. outgoing temperature                           | 22  |  | °C          |
| max. outgoing temperature                           | 60  | 63   | °C          |
| min. Nominal flow                                   | 0,38  | 0,38   | m³/h        |
| Nominal flow rate dT 5K                             | 0,86  | 1,4  | m³/h        |
| max. rest pressure head dT 5K                       | 640   | 450  | mbar        |
| Nominal flow rate dT 8K                             | 0,61  | 0,78   | m³/h        |
| max. rest pressure head dT 8K                       | 750   | 690  | mbar        |
| Electrical power / Rated power heating circuit pump | 15...70   |  | W           |
| Type of pump  | Hocheffizienz Pumpe   High efficiency pump  |  |             |
| EER of pump   | <0,23   |  |             |
| Water content of the heating circuit min.           | 17  | 21   | l           |
| <b>Refrigerant circuit</b>                          |   |  |             |
| Refrigerant type                                    | R410A   |  |             |
| Amount  | 1,8   | 1,95   | kg          |
| No. of turns EX-Valve                               | ---   | ---  | U           |
| Calculation pressure                                | 4,15 (41,5)   |  |             |
| Compressor Type                                     | Rollkolben   rolling piston   |  |             |
| Oil   | spezifisches Polyvinylester (PVE)   specific polyvinyl (PVE)  |  |             |
| Control refrigeration circuit                       | elektronisch   electronic   |  |             |

|  | VWL 55/3 A 230V | VWL 85/3 A 230V |       |
|--|-----------------|-----------------|-------|
| <b>Sound power level</b>                         |                 |                 |       |
| <b>when heating</b>                              |                 |                 |       |
| A7W35 -> EN 12102 -> EN 14511 Lw l               | 58,39           | 59,27           | dB(A) |
| A7W45 -> EN 12102 -> EN 14511 Lw l               | 58,47           | 59,01           | dB(A) |
| A7W55 -> EN 12102 -> EN 14511 Lw l               | 58,12           | 59,87           | dB(A) |
| A20W35 -> EN 12102 -> EN 14511 Lw l              | Not measured    | Not measured    | dB(A) |
| A20W45 -> EN 12102 -> EN 14511 Lw l              | Not measured    | Not measured    | dB(A) |
| A20W55 -> EN 12102 -> EN 14511 Lw l              | Not measured    | Not measured    | dB(A) |
| <b>when cooling</b>                              |                 |                 |       |
| A3SW18 -> EN12102 -> 14511 Lw e                  | 56,18           | 60,13           | dB(A) |
| <b>Place of installation</b>                     |                 |                 |       |
| Außen / outside                                  |                 |                 |       |
| Ambient temperature at the place of installation | - 15 / 48       | - 20 / 48       | °C    |
| <b>Heating TA Lärm general residential</b>       |                 |                 |       |
| Minimum distances daytime                        |                 |                 |       |
| - Sound propagation hemisphere                   | 0,8             | 0,8             | m     |
| - Sound propagation quarter sphere               | 1,1             | 1,1             | m     |
| - Sound propagation eighth sphere                | 1,6             | 1,6             | m     |
| Minimum clearances night operation               |                 |                 |       |
| - Sound propagation hemisphere                   | 4,5             | 4,5             | m     |
| - Sound propagation quarter sphere               | 6,3             | 6,3             | m     |
| - Sound propagation eighth sphere                | 9,0             | 9,0             | m     |
| <b>Cooling TA Lärm</b>                           |                 |                 |       |
| Minimum distances daytime                        |                 |                 |       |
| - Sound propagation hemisphere                   | 0,6             | 0,9             | m     |
| - Sound propagation quarter sphere               | 0,8             | 1,3             | m     |
| - Sound propagation eighth sphere                | 1,1             | 1,8             | m     |
| Minimum clearances night operation               |                 |                 |       |
| - Sound propagation hemisphere                   | 3,2             | 5,0             | m     |
| - Sound propagation quarter sphere               | 4,5             | 7,1             | m     |
| - Sound propagation eighth sphere                | 6,3             | 10,0            | m     |

| Performance data  |                  |                  |    |
|---|------------------|------------------|----|
|   | VWL 55/3 A 230V  | VWL 85/3 A 230V  |    |
| <b>Performance data EN 14511 heat pump</b>  |                  |                  |    |
| Note<br>Die nachfolgenden Leistungsdaten gelten für neue Geräte mit sauberen Wärmeübertragern.<br>The following performance data apply to new equipment with clean heat exchangers. |                  |                  |    |
| <b>Heating EN 14511</b>   |                  |                  |    |
| <b>A-15W35 -&gt; EN 14511</b>   |                  |                  |    |
| Heating power   | 3,80             | 5,70             | kW |
| Power consumption   | 1,60             | 2,40             | kW |
| COP   | 2,40             | 2,40             |    |
| <b>A-15W45 -&gt; EN 14511</b>   |                  |                  |    |
| Heating power   | 4,20             | 5,00             | kW |
| Power consumption   | 2,10             | 2,40             | kW |
| COP   | 2,00             | 2,10             |    |
| <b>A-15W55 -&gt; EN 14511</b>   |                  |                  |    |
| Heating power   | outside envelope | outside envelope | kW |
| Power consumption   | outside envelope | outside envelope | kW |
| COP   | outside envelope | outside envelope |    |
| <b>A-7W35 -&gt; EN 14511</b>  |                  |                  |    |
| Heating power   | 4,90             | 6,60             | kW |
| Power consumption   | 1,90             | 2,50             | kW |
| COP   | 2,50             | 2,70             |    |
| <b>A-7W45 -&gt; EN 14511</b>  |                  |                  |    |
| Heating power   | 4,60             | 5,70             | kW |
| Power consumption   | 2,30             | 2,50             | kW |
| COP   | 2,00             | 2,30             |    |
| <b>A-7W55 -&gt; EN 14511</b>  |                  |                  |    |
| Heating power   | 3,90             | 4,80             | kW |
| Power consumption   | 2,20             | 2,50             | kW |
| COP   | 1,70             | 1,90             |    |
| <b>A2W35 Δt5 -&gt; EN 14511</b>   |                  |                  |    |
| Heating power   | 2,80             | 4,50             | kW |
| Power consumption   | 0,80             | 1,20             | kW |
| COP   | 3,50             | 3,90             |    |
| <b>A2W45 Δt5 -&gt; EN 14511</b>   |                  |                  |    |
| Heating power   | 2,60             | 4,20             | kW |
| Power consumption   | 1,00             | 1,40             | kW |
| COP   | 2,70             | 3,10             |    |
| <b>A2W55 Δt8 -&gt; EN 14511</b>   |                  |                  |    |
| Heating power   | 3,30             | 3,60             | kW |
| Power consumption   | 1,30             | 1,60             | kW |
| COP   | 2,50             | 2,30             |    |
| <b>A7W35 Δt5 -&gt; EN 14511</b>   |                  |                  |    |
| Heating power   | 4,40             | 7,70             | kW |
| Power consumption   | 0,90             | 1,70             | kW |
| COP   | 4,70             | 4,60             |    |
| <b>A7W45 -&gt; EN 14511</b>   |                  |                  |    |
| Heating power   | 4,20             | 7,00             | kW |
| Power consumption   | 1,60             | 2,00             | kW |
| COP   | 3,60             | 3,50             |    |
| <b>A7W55 -&gt; EN 14511</b>   |                  |                  |    |
| Heating power   | 4,10             | 6,50             | kW |
| Power consumption   | 1,40             | 2,30             | kW |
| COP   | 2,90             | 2,80             |    |
| <b>A10W35 -&gt; EN 14511</b>  |                  |                  |    |
| Heating power   | 4,90             | 6,20             | kW |
| Power consumption   | 0,90             | 1,10             | kW |
| COP   | 5,50             | 5,50             |    |
| <b>A10W45 -&gt; EN 14511</b>  |                  |                  |    |
| Heating power   | 4,70             | 5,50             | kW |
| Power consumption   | 1,10             | 1,40             | kW |
| COP   | 4,20             | 4,00             |    |
| <b>A10W55 -&gt; EN 14511</b>  |                  |                  |    |
| Heating power   | 4,70             | 4,80             | kW |
| Power consumption   | 1,40             | 1,70             | kW |
| COP   | 3,40             | 2,90             |    |
| <b>A12W35 -&gt; EN 14511</b>  |                  |                  |    |
| Heating power   | 5,20             | 6,30             | kW |
| Power consumption   | 0,90             | 1,10             | kW |
| COP   | 5,80             | 5,70             |    |
| <b>A12W45 -&gt; EN 14511</b>  |                  |                  |    |
| Heating power   | 5,00             | 5,60             | kW |
| Power consumption   | 1,10             | 1,40             | kW |
| COP   | 4,40             | 4,00             |    |
| <b>A12W55 -&gt; EN 14511</b>  |                  |                  |    |
| Heating power   | 4,20             | 4,90             | kW |
| Power consumption   | 1,20             | 1,70             | kW |
| COP   | 3,40             | 2,90             |    |
| <b>A-3W45 -&gt; EN 14511</b>  |                  |                  |    |
| Heating power   | 4,80             | 5,80             | kW |
| Power consumption   | 2,20             | 2,40             | kW |
| COP   | 2,20             | 2,40             |    |

|  | VWL 55/3 A 230V | VWL 85/3 A 230V |    |
|--|-----------------|-----------------|----|
| <b>Cooling EN 14511</b>                                  |                 |                 |    |
| <b>A3SW7 → EN14511</b>                                   |                 |                 |    |
| Cooling power  | 3.60            | 5.50            | kW |
| Power consumption  | 1.30            | 1.90            | kW |
| EER  | 2.70            | 2.90            |    |
| <b>A3SW19 → EN14512</b>                                  |                 |                 |    |
| Cooling power  | 5.00            | 7.30            | kW |
| Power consumption  | 1.40            | 2.10            | kW |
| EER  | 3.70            | 3.50            |    |
| <b>Performance data (EN 14825)</b>                       |                 |                 |    |
| Water flow (fixed/variable)                              | fixed           | fixed           |    |
| Outlet temperature (fixed/variable)                      | variable        | variable        |    |
| Type of backup heater                                    | NA              | NA              |    |
| <b>Colder Climate (W35)</b>                              |                 |                 |    |
| Power consumption in the off mode (Psb)                  | 5.70            | 4.30            | W  |
| Power consumption in the standby mode (Psb)              | 5.10            | 4.50            | W  |
| thermostat-off mode power consumption (Pto)              | 5.60            | 4.40            | W  |
| Power consumption in the crankcase heater mode (Pck)     | 5.20            | 5.80            | W  |
| heat load at design temperature (Pdesign@Tdesign)        | 6.51            | 9.50            | kW |
| Bivalent temperature (Tbiv)                              | -12.00          | -12.00          | °C |
| Operation temperature limit (TOL)                        | -15.00          | -20.00          | °C |
| active mode seasonal coefficient of performance (SCOPon) | 3.54            | 3.70            |    |
| seasonal coefficient of performance (SCOP)               | 3.19            | 3.13            |    |
| <b>Colder Climate (W55)</b>                              |                 |                 |    |
| Power consumption in the off mode (Psb)                  | 5.70            | 4.30            | W  |
| Power consumption in the standby mode (Psb)              | 5.10            | 4.50            | W  |
| thermostat-off mode power consumption (Pto)              | 5.60            | 4.40            | W  |
| Power consumption in the crankcase heater mode (Pck)     | 5.20            | 5.80            | W  |
| heat load at design temperature (Pdesign@Tdesign)        | 6.11            | 6.11            | kW |
| Bivalent temperature (Tbiv)                              | -12.00          | -12.00          | °C |
| Operation temperature limit (TOL)                        | -15.00          | -20.00          | °C |
| active mode seasonal coefficient of performance (SCOPon) | 3.01            | 2.76            |    |
| seasonal coefficient of performance (SCOP)               | 2.74            | 2.68            |    |
| <b>Average Climate Low Temperature (W35)</b>             |                 |                 |    |
| Power consumption in the off mode (Psb)                  | 5.70            | 4.30            | W  |
| Power consumption in the standby mode (Psb)              | 5.10            | 4.50            | W  |
| thermostat-off mode power consumption (Pto)              | 5.60            | 4.40            | W  |
| Power consumption in the crankcase heater mode (Pck)     | 5.20            | 5.80            | W  |
| heat load at design temperature (Pdesign@Tdesign)        | 4.87 (@-10)     | 7.49 (@-10)     | kW |
| Bivalent temperature (Tbiv)                              | -7.00           | -7.00           | °C |
| Operation temperature limit (TOL)                        | -15.00          | -20.00          | °C |
| active mode seasonal coefficient of performance (SCOPon) | 3.96            | 4.74            |    |
| seasonal coefficient of performance (SCOP)               | 3.88            | 4.66            |    |
| <b>Average Climate High Temperature (W55)</b>            |                 |                 |    |
| Power consumption in the off mode (Psb)                  | 5.70            | 4.30            | W  |
| Power consumption in the standby mode (Psb)              | 5.10            | 4.50            | W  |
| thermostat-off mode power consumption (Pto)              | 5.60            | 4.40            | W  |
| Power consumption in the crankcase heater mode (Pck)     | 5.20            | 5.80            | W  |
| heat load at design temperature (Pdesign@Tdesign)        | 3.59 (@-10)     | 5.44 (@-10)     | kW |
| Bivalent temperature (Tbiv)                              | -7.00           | -7.00           | °C |
| Operation temperature limit (TOL)                        | -15.00          | -20.00          | °C |
| active mode seasonal coefficient of performance (SCOPon) | 3.14            | 3.35            |    |
| seasonal coefficient of performance (SCOP)               | 3.08            | 3.29            |    |
| <b>Warmer Climate (W35)</b>                              |                 |                 |    |
| Power consumption in the off mode (Psb)                  | 5.70            | 4.30            | W  |
| Power consumption in the standby mode (Psb)              | 5.10            | 4.50            | W  |
| thermostat-off mode power consumption (Pto)              | 5.60            | 4.40            | W  |
| Power consumption in the crankcase heater mode (Pck)     | 5.20            | 5.80            | W  |
| heat load at design temperature (Pdesign@Tdesign)        | 5.80            | 8.27            | kW |
| Bivalent temperature (Tbiv)                              | 2.00            | 2.00            | °C |
| Operation temperature limit (TOL)                        | -15.00          | -20.00          | °C |
| active mode seasonal coefficient of performance (SCOPon) | 5.98            | 6.20            |    |
| seasonal coefficient of performance (SCOP)               | 5.94            | 6.18            |    |
| <b>Warmer Climate (W55)</b>                              |                 |                 |    |
| Power consumption in the off mode (Psb)                  | 5.70            | 4.30            | W  |
| Power consumption in the standby mode (Psb)              | 5.10            | 4.50            | W  |
| thermostat-off mode power consumption (Pto)              | 5.60            | 4.40            | W  |
| Power consumption in the crankcase heater mode (Pck)     | 5.20            | 5.80            | W  |
| heat load at design temperature (Pdesign@Tdesign)        | 5.80            | 5.74            | kW |
| Bivalent temperature (Tbiv)                              | 2.00            | 2.00            | °C |
| Operation temperature limit (TOL)                        | -15.00          | -20.00          | °C |
| active mode seasonal coefficient of performance (SCOPon) | 4.60            | 4.73            |    |
| seasonal coefficient of performance (SCOP)               | 4.58            | 4.70            |    |

| Envelope                         |   |                 |
|----------------------------------|---|-----------------|
|                                  | VWL 55/3 A 230V   | VWL 85/3 A 230V |
| Envelope heat pump EN 14511      |   |                 |
| Note                             | bei Nennvolumenströmen   at nominal flow rates  |                 |
| Note                             | Der Betrieb der Wärmepumpe außerhalb der Einsatzgrenzen führt zum Abschalten der Wärmepumpe durch die internen Regel- und Sicherheitsvorrichtungen.<br>The operation of the heat pump will use outside the boundaries of the heat pump to turn off the internal control and safety devices.   |                 |
| Heating                          | A-15W22   | A-20W22         |
|                                  | A-15W43   | A-20W43         |
|                                  | A-10W55   | A-10W55         |
|                                  | A2W60   | A2W63           |
|                                  | A28W60  | A28W63          |
|                                  | A28W22  | A28W22          |
| Cooling                          | A10W7   |                 |
|                                  | A10W25  |                 |
|                                  | A46W25  |                 |
|                                  | A46W7   |                 |
| Equivalent to safety regulations |   |                 |
| Meets safety regulations         |   |                 |
|                                  | CE-Zeichen   CE-Sign  |                 |
|                                  | Niederspannungsrichtlinie   Low Voltage Directive 2014/35/EU  |                 |
|                                  | EMV-Richtlinie   EMC Directive 2014/30/EU   |                 |
|                                  | ISO 5149  |                 |
| Note                             | Contains fluorinated greenhouse gases covered by the Kyoto Protocol   |                 |
|                                  | Hermetically sealed system  |                 |
|                                  | Dieses Gerät enthält das Kältemittel R 410A. Das Kältemittel darf nicht in die Atmosphäre gelangen. R 410A ist ein vom Kyoto-Protokoll erfasstes fluoriertes Treibhausgas mit GWP 1730 (GWP = Global Warming Potential).   This unit contains the refrigerant R 410A. The refrigerant shall not be discharged into the atmosphere. R 410A is captured by the Kyoto Protocol. GWP fluorinated greenhouse gas with 1730 (GWP = Global Warming Potential). |                 |