

10061702

alpha innotec

SWP 691



55 °C

35 °C



Λ ++

 A^+

Δ

R

A++

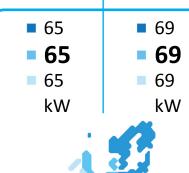




59 dB



dB





2019 811/2013



10061702

alpha innotec

SWP 691



55 °C

35 °C



Λ ++

 Δ^{+}

Δ

В

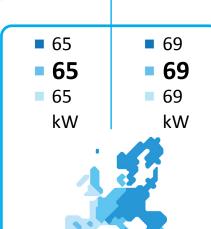
A⁺⁺







dB



2019 811/2013



IJA ENERG енергия · ενεργεια

10061702

alpha innotec

SWP 691 + Luxtronik 2.05



























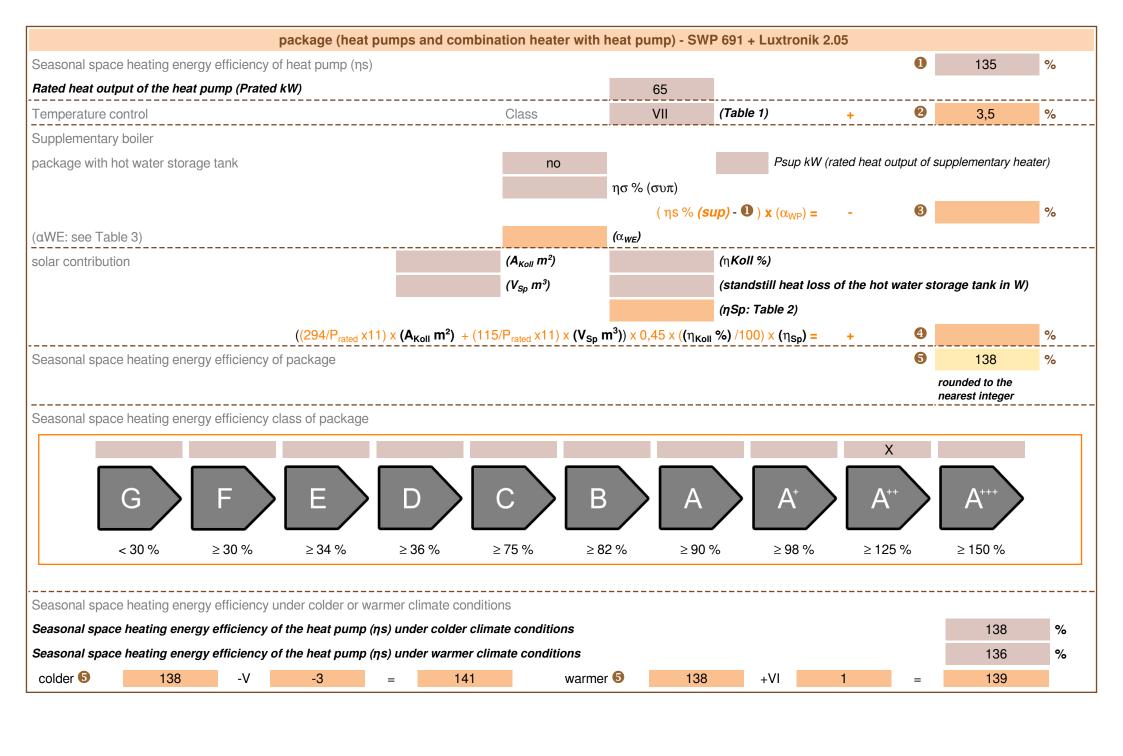


B



E

2015 811/2013



| manufacturer: | alpha innotec SWP 691 | | | |
|---|-----------------------------|----------------------------------|----------------------|--|
| model: | | | | |
| | • | | | |
| Information concerning energy efficiency class and rate | d heat output: | | | |
| | | | | |
| | average / low | average / medium | | |
| energy efficiency class space heater: | A+++ | A++ | - | |
| rated heat output: | 69 | 65 | kW | |
| energy efficiency space heater: | 193 | 135 | % | |
| annual final energy consumption space heater | 28231 | 37453 | kWh | |
| | • | | | |
| sound power level indoors | | 59 | dB | |
| special precautions concerning assembly, installation o All instructional work in this manual may only be carried out by regulations. | | nnel in compliance with loca | al | |
| All instructional work in this manual may only be carried out by | | nnel in compliance with loca | al | |
| All instructional work in this manual may only be carried out by regulations. | | | al | |
| All instructional work in this manual may only be carried out by regulations. additional information | qualified specialist persor | medium | | |
| All instructional work in this manual may only be carried out by regulations. additional information | qualified specialist persor | | al kW | |
| All instructional work in this manual may only be carried out by | qualified specialist persor | medium | | |
| All instructional work in this manual may only be carried out by regulations. additional information rated heat output colder climate rated heat output warmer climate | qualified specialist persor | medium 65 | kW | |
| All instructional work in this manual may only be carried out by regulations. additional information rated heat output colder climate rated heat output warmer climate energy effiency space heater colder climate | low 69 69 | medium 65 65 | kW kW | |
| All instructional work in this manual may only be carried out by regulations. additional information rated heat output colder climate rated heat output warmer climate energy effiency space heater colder climate energy effiency space heater warmer climate | low 69 69 198 | medium 65 65 138 | kW kW | |
| All instructional work in this manual may only be carried out by regulations. additional information rated heat output colder climate | low 69 69 198 195 | medium 65 65 138 136 | kW kW % | |
| All instructional work in this manual may only be carried out by regulations. additional information rated heat output colder climate rated heat output warmer climate energy effiency space heater colder climate energy effiency space heater warmer climate annual energy consumption space heater colder climate | low 69 69 198 195 32806 | medium 65 65 138 136 43759 | kW kW % kWh | |

| technical data of the temperature controller | | | | | | |
|--|----------------|---|--|--|--|--|
| | | | | | | |
| manufacturer: | alpha innotec | | | | | |
| model: | Luxtronik 2.05 | | | | | |
| | | | | | | |
| controller class | VII | - | | | | |
| contribution of the controller to the energy efficiency space heater | 3,5 | % | | | | |

| Second S | Model | | | | SWP 691 | | | | |
|--|--|-------------------|-----------------|----------------|---|-------------|------------|-------------------|--|
| Mater-to-water heat pump: (yes/no) | Air-to-water heat pump: (yes/no) | | | | | | | | |
| cov-temperature heat pump; (yes/no) Guipped with supplementary heater; (yes/no) population; (low/medium) saverage tem Symbol Value Unit litem | Brine-to-water heat pump: (yes/no) | | | | yes | yes | | | |
| Equipped with supplementary heater: (yes/no) | Water-to-water heat pump: (yes/no) | | | no | | | | | |
| pombination heater with: (yes/no) application: (low/medium) application: (low/medium) average tem | Low-temperature heat pump: (yes/no) | | | no | | | | | |
| Implication: (low/medium) Implication: (low/medium) Implication: (low/medium) Implication: (low/medium) Implication: (low/medium) Implication: (low/medium) Implication: (low/medium) Implication: (low/medium) Implication: (low/medium) Implication: (low/medium) Implication: Implicati | Equipped with supplementary heater: (yes/no) | | | yes | | | | | |
| Symbol Value Unit Item Symbol Value Unit Uni | combination heater with: (yes/no) |) | | | no | | | | |
| Symbol Value Unit Rated heat output Prated SS kW Seasonal space heating energy efficiency ηS 134,5 % Prated SS kW Seasonal space heating energy efficiency ηS 134,5 % Prated SS kW Seasonal space heating energy efficiency ηS 134,5 % Prated SS KW Seasonal space heating energy efficiency ηS 134,5 % Prated SS SS SS SS SS SS SS | application: (low/medium) | | | medium | | | | | |
| Prace 65 RW Seasonal space heating energy efficiency \(\text{n} \) | climate: (colder/average/warmer) | | | average | | | | | |
| Declared coefficient of performance for part load at indoor temperature 20°C and outdoor temperature Tj | Item | Symbol | Value | Unit | Item | Symbol | Value | Unit | |
| | Rated heat output | Prated | 65 | kW | | ηS | 134,5 | % | |
| $T_j = +2^{\circ}C \qquad \qquad Pdh \qquad 66.4 \qquad kW \qquad T_j = +2^{\circ}C \qquad \qquad COPd \qquad 3.51 \qquad -T_j = +7^{\circ}C \qquad \qquad Pdh \qquad 66.3 \qquad kW \qquad T_j = +7^{\circ}C \qquad \qquad COPd \qquad 3.88 \qquad -T_j = +7^{\circ}C \qquad \qquad Pdh \qquad 68.2 \qquad kW \qquad T_j = +7^{\circ}C \qquad \qquad COPd \qquad 3.88 \qquad -T_j = +7^{\circ}C \qquad \qquad COPd \qquad 3.88 \qquad -T_j = +7^{\circ}C \qquad \qquad COPd \qquad 3.88 \qquad -T_j = +7^{\circ}C \qquad \qquad COPd \qquad 3.88 \qquad -T_j = +7^{\circ}C \qquad \qquad COPd \qquad 3.88 \qquad -T_j = +7^{\circ}C \qquad \qquad COPd \qquad 3.88 \qquad -T_j = +7^{\circ}C \qquad \qquad COPd \qquad 3.88 \qquad -T_j = +7^{\circ}C \qquad \qquad COPd \qquad 3.88 \qquad -T_j = +7^{\circ}C \qquad \qquad COPd \qquad 3.88 \qquad -T_j = +7^{\circ}C \qquad \qquad COPd \qquad 4.31 \qquad -T_j = -7^{\circ}C \qquad Pdh \qquad 64.6 \qquad kW \qquad T_j = -7^{\circ}C \qquad COPd \qquad 2.90 \qquad -T_j = -7^{\circ}C \qquad CO$ | | | | indoor | | | | indoor | |
| $T] = +7^{\circ}C \qquad \qquad Pdh \qquad 67.3 \qquad kW \qquad T] = +7^{\circ}C \qquad \qquad COPd \qquad 3.88 \qquad -T] = +12^{\circ}C \qquad \qquad Pdh \qquad 68.2 \qquad kW \qquad T] = +12^{\circ}C \qquad \qquad COPd \qquad 4.31 \qquad -T] = bivalent temperature \qquad Pdh \qquad 64.6 \qquad kW \qquad T] = -t12^{\circ}C \qquad \qquad COPd \qquad 4.31 \qquad -T] = bivalent temperature \qquad Pdh \qquad 64.6 \qquad kW \qquad T] = -t12^{\circ}C \qquad \qquad COPd \qquad 2.90 \qquad -T] = bivalent temperature \qquad Pdh \qquad 64.6 \qquad kW \qquad T] = -t12^{\circ}C \qquad COPd \qquad 2.90 \qquad -T] = -t12^{\circ}C \qquad COPd \qquad -T] = -t12^{\circ}C \qquad -T] = $ | Tj = -7°C | Pdh | 65,0 | kW | Tj = -7°C | COPd | 3,02 | - | |
| Tj = +12°C Pdh 68,2 kW Tj = +12°C COPd 4,31 - Tj = bivalent temperature Pdh 64,6 kW Tj = bivalent temperature COPd 2,90 - Tj = operation limit temperature Pdh 64,6 kW Tj = operation limit temperature COPd 2,90 - Tj = operation limit temperature Pdh 64,6 kW Tj = operation limit temperature COPd 2,90 - Tj = -15°C (if TOL < -20°C) COPd - Tj = -15°C (if TOL < -20°C) COPd - Tj = -15°C (if TOL < -20°C) COPd - Tj = -15°C (if TOL < -20°C) COPd - Tj = -15°C (if TOL < -20°C) COPd - Tj = -15°C (if TOL < -20°C) COPd - Tj = -15°C (if TOL < -20°C) COPd - Tj = -15°C (if TOL < -20°C) COPd - Tj = -15°C (if TOL < -20°C) COPd - Tj = -15°C (if TOL < -20°C) COPd - Tj = -15°C (if TOL < -20°C) COPd - To = -15°C (if TOL < -20°C) COPd - To = -15°C (if TOL < -20°C) COPd - To = -15°C (if TOL < -20°C) COPd - To = -15°C (if TOL < -20°C) COPd - To = -15°C (if TOL < -20°C) COPd - To = -15°C (if TOL < -20°C) COPd - To = -15°C (if TOL < -20°C) COPd - To = -15°C (if TOL < -20°C) COPd - To = -15°C (if TOL < -20°C) COPd - To = -15°C (if TOL < -20°C) COPd - To = -15°C (if TOL < -20°C) COPd - To = -15°C (if TOL < -20°C) COPd - To = -15°C (if TOL < -20°C) COPd - To = -15°C (if TOL < -20°C) COPd - To = -15°C (if TOL < -20°C) COPd - To = -15°C (if TOL < -20°C) COPd - To = -15°C (if TOL < -20°C) COPd - To = -15°C (if TOL < -20°C) COPd - To = -15°C (if TOL < -20°C) COPd - To = -15°C (if TOL < -20°C) COPd - To = -15°C (if TOL < -20°C) COPd - To = -15°C (if TOL < -20°C) COPd - To = -15°C (if TOL < -20°C) COPd - To = -15°C (if TOL < -20°C) COPd - To = -15°C (if TOL < -20°C) COPd - To = -15°C (if TOL < -20°C) COPd - To = -15°C (if TOL < -20°C) COPd - To = -15°C (if TOL < -20°C) COPd - To = -15°C (if TOL < -20°C) COPd - To = -15°C (if TOL < -20°C) COPd - To = -15°C (if TOL < -20°C) COPd - To = -15°C (if TOL < -20°C) COPd - To = -15°C (if TOL < -20°C) COPd - To = -15°C (if TOL < -20 | Tj = +2°C | Pdh | 66,4 | kW | Tj = +2°C | COPd | 3,51 | - | |
| Tj = bivalent temperature Pdh 64,6 kW Tj = bivalent temperature COPd 2,90 - Tj = operation limit temperature Pdh 64,6 kW Tj = operation limit temperature COPd 2,90 - Tj = operation limit temperature Pdh 64,6 kW Tj = operation limit temperature COPd 2,90 - Tor air-to-water heat pumps: Tj = -15°C (if TOL < -20°C) Tor air-to-water heat pumps: Tj = -15°C (if TOL < -20°C) Tor air-to-water heat pumps: Tj = -15°C (if TOL < -20°C) Tor air-to-water heat pumps: Tj = -15°C (if TOL < -20°C) Tor air-to-water heat pumps: ToL = -10 °C Tol = - | Tj = +7°C | Pdh | 67,3 | kW | Tj = +7°C | COPd | 3,88 | - | |
| Tj = operation limit temperature Pdh 64,6 kW Tj = operation limit temperature COPd 2,90 - For air-to-water heat pumps: Tj | Tj = +12°C | Pdh | 68,2 | kW | Tj = +12°C | COPd | 4,31 | - | |
| For air-to-water heat pumps: Tj | Tj = bivalent temperature | Pdh | 64,6 | kW | Tj = bivalent temperature | COPd | 2,90 | - | |
| =-15 °C (if TOL <-20 °C) Bivalent temperature T biv T b | Tj = operation limit temperature | Pdh | 64,6 | kW | Tj = operation limit temperature | COPd | 2,90 | - | |
| Operation limit temperature Cycling interval capacity for neating Degradation co-efficient (**) Codh 1,0 - Heating water operating limit temperature Code of temperature Code of temperature Code of temperature Supplementary heater Supplementary heater Supplementary heater Supplementary heater Code of temperature Supplementary heater For energy input Supplementary heater For energy input Supplementary heater heat pumps: Rated air flow rate, outdoors For water heat pumps: Rated air flow rate, outdoors Sound power level, Indoors/outdoors NO _x - mg/kWh For heat pump combination heater: Declared load profile Sound power level, Sound power level, Indoors/outdoors NO _x - mg/kWh Supplementary heater heat pumps: Supplementary heater heat pumps: Supplementary heater Supplementary heater Supplementary heater heat pumps: Supplementary heater Supplementary energy input Supplementary heater Supplementary energy input Supplementary heater Supplementary energy input Supplementary energy input Supplementary energy input Supplementary energy input Supplementary energy ene | For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C) | Pdh | - | kW | | COPd | - | - | |
| Degradation co-efficient (**) Cdh 1,0 - Heating water operating limit wTOL Bupplementary heater Supplementary heater Psup - kW Type of energy input electrical For air-to-water heat pumps: Rated air flow rate, outdoors Supplementary heater For air-to-water heat pumps: Rated air flow rate, outdoors Supplementary heater Psup - kW For air-to-water heat pumps: Rated brine or water flow rate, outdoors For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger Supplementary heater Water heating energy efficiency Type of energy input electrical For air-to-water heat pumps: Rated brine or water flow rate, outdoors Water heating energy efficiency Type of energy input electrical Bupplementary electrical Water heating energy efficiency Type of energy input electrical Bupplementary electrical Water heating energy efficiency Type of energy input electrical Bupplementary electrical Water heating energy efficiency Type of energy input electrical Bupplementary electrical Water heating energy efficiency Type of energy input Electrical Bupplementary electrical Water heating energy efficiency Type of energy input electrical Bupplementary electrical Bupp | Bivalent temperature | T _{biv} | -10 | °C | | TOL | -10 | °C | |
| Power consumption in modes other than active mode Off mode Poff | Cycling interval capacity for heating | Pcych | - | kW | Cycling interval efficiency | COPcyc | - | - | |
| Off mode | Degradation co-efficient (**) | Cdh | 1,0 | - | | WTOL | 60 | °C | |
| Thermostat-off mode | Power consumption in modes | other thai | n active mod | e | Supplementary heater | • | | | |
| Thermostat-off mode | Off mode | P _{OFF} | 0,015 | kW | Rated heat output | Psup | - | kW | |
| Standby mode | Thermostat-off mode | | 0,015 | kW | Type of energy input | | electrical | | |
| Capacity control fixed For air-to-water heat pumps: Rated air flow rate, outdoors For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoors For heat pump combination heater: Capacity consumption Qelec Rated air flow rate, outdoors For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger Water heating energy efficiency Now Now Now Now Now Now Now No | Standby mode | P_{SB} | 0,015 | kW | | | | | |
| Capacity control fixed fixed For air-to-water heat pumps: Rated air flow rate, outdoors For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat pumps: Rated brine or water flow rate, outdoor heat exchanger For heat pump combination heater: Declared load profile - Water heating energy efficiency \(\eta_{wh} \) - \(\eta_{wh} \) Daily electricity consumption \(\Q_{elec} \) - kWh Daily fuel consumption \(\Q_{elec} \) - kWh Contact details To heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). | Crankcase heater mode | P _{CK} | - | kW | | | | | |
| Rated air flow rate, outdoors For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat pumps: R | Other items | | | | | | | | |
| pumps: Rated brine or water flow rate, outdoor heat exchanger Emissions of nitrogen oxides NO _X - mg/kWh For heat pump combination heater: Declared load profile - Water heating energy efficiency η _{wh} - % Daily electricity consumption Q _{elec} - kWh Daily fuel consumption Qfuel - kWh Contact details ait deutschland GmbH Industriestr. 3 95359 Kasendorf Germany *) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). | Capacity control | fixed | | | | - | - | m ³ /h | |
| For heat pump combination heater: Declared load profile Coally electricity consumption Qelec Awh Daily fuel consumption Qfuel Awh Contact details Ait deutschland GmbH Industriestr. 3 95359 Kasendorf Germany The heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Podesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). | sound power level, indoors/outdoors | L _{WA} | 59 / - | dB | pumps: Rated brine or water flow rate, outdoor heat | - | 25 | m ³ /h | |
| Declared load profile - Water heating energy efficiency η_{wh} - % Daily electricity consumption Q_{elec} - kWh Daily fuel consumption Qfuel - kWh Contact details ait deutschland GmbH Industriestr. 3 95359 Kasendorf Germany (*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). | Emissions of nitrogen oxides | NO _X | - | mg/kWh | | | | | |
| Daily electricity consumption Qelec - kWh Daily fuel consumption Qfuel - kWh Contact details ait deutschland GmbH Industriestr. 3 95359 Kasendorf Germany *) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). | For heat pump combination h | eater: | | | | | | | |
| ait deutschland GmbH Industriestr. 3 95359 Kasendorf Germany (*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). | Declared load profile | | | | Water heating energy efficiency | η_{wh} | | % | |
| *) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). | Daily electricity consumption | Q _{elec} | - | kWh | Daily fuel consumption | Qfuel | - | kWh | |
| Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj). | Contact details | ait deutsch | land GmbH Ir | ndustriestr. 3 | 95359 Kasendorf Germany | | | | |
| **) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9. | | | | | | | | eating | |
| | (**) If Cdh is not determined by m | neasuremen | t then the defa | ault degrada | tion coefficient is Cdh = 0,9. | | | | |

| Model | | | | SWP 691 | | | | |
|--|-------------------|-----------------|----------------|---|-------------|------------|-------------------|--|
| Air-to-water heat pump: (yes/no) | | | | no | | | | |
| Brine-to-water heat pump: (yes/no) | | | | yes | | | | |
| Water-to-water heat pump: (yes/no) | | | no | | | | | |
| Low-temperature heat pump: (yes/no) | | | no | | | | | |
| Equipped with supplementary heater: (yes/no) | | | yes | | | | | |
| combination heater with: (yes/no) | | | no | | | | | |
| application: (low/medium) | | | | low | | | | |
| climate: (colder/average/warmer) |) | | | average | | | | |
| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit | |
| Rated heat output | Prated | 69 | kW | Seasonal space heating energy efficiency | ηS | 192,8 | % | |
| Declared coefficient of perfor temperature 20°C and outdoo | | | indoor | Declared coefficient of performance for part load at indoor temperature 20°C and outdoor temperature Tj | | | | |
| Tj = -7°C | Pdh | 68,7 | kW | Tj = -7°C | COPd | 4,66 | - | |
| Tj = +2°C | Pdh | 69,1 | kW | Tj = +2°C | COPd | 4,96 | - | |
| Tj = +7°C | Pdh | 69,5 | kW | Tj = +7°C | COPd | 5,26 | - | |
| Tj = +12°C | Pdh | 69,9 | kW | Tj = +12°C | COPd | 5,58 | - | |
| Tj = bivalent temperature | Pdh | 68,6 | kW | Tj = bivalent temperature | COPd | 4,60 | - | |
| Tj = operation limit temperature | Pdh | 68,6 | kW | Tj = operation limit temperature | COPd | 4,60 | - | |
| For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C) | Pdh | - | kW | For air-to-water heat pumps: Tj = -15°C (if TOL < -20°C) | COPd | - | - | |
| Bivalent temperature | T _{biv} | -10 | °C | For air-to-water heat pumps: Operation limit temperature | TOL | -10 | °C | |
| Cycling interval capacity for heating | Pcych | - | kW | Cycling interval efficiency | COPcyc | - | - | |
| Degradation co-efficient (**) | Cdh | 1,0 | - | Heating water operating limit temperature | WTOL | 60 | °C | |
| Power consumption in modes | other that | n active mod | e | Supplementary heater | | | | |
| Off mode | P _{OFF} | 0,015 | kW | Rated heat output | Psup | - | kW | |
| Thermostat-off mode | P _{TO} | 0,015 | kW | Type of energy input | | electrical | • | |
| Standby mode | P _{SB} | 0,015 | kW | | | | | |
| Crankcase heater mode | P _{CK} | - | kW | | | | | |
| Other items | | | | | | | | |
| Capacity control | fixed | | | For air-to-water heat pumps: Rated air flow rate, outdoors | - | - | m ³ /h | |
| sound power level, indoors/outdoors | L _{WA} | 59 / - | dB | For water-/brine-to-water heat pumps: Rated brine or water flow rate, outdoor heat exchanger | - | 25 | m ³ /h | |
| Emissions of nitrogen oxides | NO _X | - | mg/kWh | | | | | |
| For heat pump combination h | eater: | | | | | | | |
| Declared load profile | | - | | Water heating energy efficiency | η_{wh} | - | % | |
| Daily electricity consumption | Q _{elec} | - | kWh | Daily fuel consumption | Qfuel | - | kWh | |
| Contact details | | land GmbH Ir | ndustriestr. 3 | 95359 Kasendorf Germany | - | - | - | |
| | | | | the rated heat output Prated is equ equal to the supplementary capac | | | eating | |
| (**) If Cdh is not determined by m | neasuremen | t then the defa | ault degrada | tion coefficient is Cdh = 0,9. | | | | |
| | | | | | | | - | |