

## Subtype Buderus Logatherm WPS 8-1

|                     |   |
|---------------------|---|
| Certificate Holder  | Bosch Thermotechnik GmbH (Buderus)  |
| Address             | Sophienstraße 30-32   |
| ZIP                 | 35576   |
| City                | Wetzlar   |
| Country             | DE  |
| Certification Body  | DIN CERTCO Gesellschaft für Konformitätsbewertung mbH   |
| Subtype title       | Buderus Logatherm WPS 8-1   |
| Registration number | 011-1W0181  |
| Heat Pump Type      | Brine/Water   |
| Refrigerant         | R410A   |
| Mass of Refrigerant | 1.95 kg   |
| Certification Date  | 17.11.2017  |
| Testing basis       | HP KEYMARK certification scheme rules rev. 14   |
| Testing laboratory  | Universität Stuttgart, Prüfstelle HLK am Institut für Gebäudeenergetik, Thermotechnik und Energiespeicherung (IGTE), DE |

## Model Buderus Logatherm WPS 8-1

|                                     |                           |
|-------------------------------------|---------------------------|
| Model name                          | Buderus Logatherm WPS 8-1 |
| Application                         | Heating (medium temp)     |
| Units                               | Indoor                    |
| Climate zone (for heating)          | n/a                       |
| Cooling mode application (optional) | n/a                       |
| Any additional heat sources         | n/a                       |

## General data

|                  |             |
|------------------|-------------|
| Power supply     | 3x400V 50Hz |
| Off-peak product | No          |

## Brine/Water

### EN 14511-4 | Heating

Shutting off the heat transfer medium flow passed

|                               |        |
|-------------------------------|--------|
| Complete power supply failure | passed |
| Defrost test                  | passed |
| Starting and operating test   | passed |

### EN 14511-2 | Heating

|             | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 7.45 kW         | 6.88 kW            |
| El input    | 1.69 kW         | 2.52 kW            |
| COP         | 4.42            | 2.73               |

### EN 12102-1 | Average Climate

|                          | Low temperature | Medium temperature |
|--------------------------|-----------------|--------------------|
| Sound power level indoor | 49 dB(A)        | 49 dB(A)           |

### EN 14825 | Average Climate

|                | Low temperature | Medium temperature |
|----------------|-----------------|--------------------|
| $\eta_s$       | 182 %           | 134 %              |
| Prated         | 9 kW            | 8 kW               |
| SCOP           | 4.75            | 3.54               |
| Tbiv           | -5 °C           | -6 °C              |
| TOL            | -10 °C          | -10 °C             |
| Pdh Tj = -7°C  | 7.48 kW         | 6.97 kW            |
| COP Tj = -7°C  | 4.53            | 2.95               |
| Cdh Tj = -7 °C | 1.00            | 1.00               |
| Pdh Tj = +2°C  | 7.54 kW         | 7.15 kW            |
| COP Tj = +2°C  | 4.8             | 3.53               |
| Cdh Tj = +2 °C | 1.00            | 1.00               |
| Pdh Tj = +7°C  | 7.60 kW         | 7.27 kW            |
| COP Tj = +7°C  | 5.03            | 3.94               |

|   |             |             |
|---|-------------|-------------|
| Cdh Tj = +7 °C                                      | 1.00        | 1.00        |
| Pdh Tj = 12°C                                       | 7.65 kW     | 7.38 kW     |
| COP Tj = 12°C                                       | 5.28        | 4.39        |
| Cdh Tj = +12 °C                                     | 1.00        | 1.00        |
| Pdh Tj = Tbiv                                       | 7.5 kW      | 6.99 kW     |
| COP Tj = Tbiv                                       | 4.62        | 3.02        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.45 kW     | 6.88 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 4.42        | 2.73        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1.00        | 1.00        |
| WTOL  | 62 °C       | 62 °C       |
| Poff  | 6 W         | 6 W         |
| PTO   | 6 W         | 6 W         |
| PSB   | 6 W         | 6 W         |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 1.55 kW     | 1.12 kW     |
| Annual energy consumption Qhe                       | 3918 kWh    | 4671 kWh    |

#### EN 12102-1 | Colder Climate

|                          | Low temperature | Medium temperature |
|--------------------------|-----------------|--------------------|
| Sound power level indoor | 49 dB(A)        | 49 dB(A)           |

#### EN 14825 | Colder Climate

|                 | Low temperature | Medium temperature |
|-----------------|-----------------|--------------------|
| ηs              | 187 %           | 137 %              |
| Prated          | 9.00 kW         | 8.00 kW            |
| SCOP            | 4.87            | 3.63               |
| Tbiv            | -15 °C          | -17 °C             |
| TOL             | -22 °C          | -22 °C             |
| Pdh Tj = -7°C   | 7.56 kW         | 7.12 kW            |
| COP Tj = -7°C   | 4.85            | 3.4                |
| Cdh Tj = -7 °C  | 1.00            | 1.00               |
| Pdh Tj = +2°C   | 7.6 kW          | 7.25 kW            |
| COP Tj = +2°C   | 5.05            | 3.86               |
| Cdh Tj = +2 °C  | 1.00            | 1.00               |
| Pdh Tj = +7°C   | 7.64 kW         | 7.35 kW            |
| COP Tj = +7°C   | 5.21            | 4.25               |
| Cdh Tj = +7 °C  | 1.00            | 1.00               |
| Pdh Tj = 12°C   | 7.64 kW         | 7.42 kW            |
| COP Tj = 12°C   | 5.24            | 4.57               |
| Cdh Tj = +12 °C | 1.00            | 1.00               |
| Pdh Tj = Tbiv   | 7.51 kW         | 6.98 kW            |
| COP Tj = Tbiv   | 4.68            | 3                  |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.45 kW     | 6.88 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 4.42        | 2.73        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1.00        | 1.00        |
| WTOL  | 62 °C       | 62 °C       |
| Poff  | 6 W         | 6 W         |
| PTO   | 6 W         | 6 W         |
| PSB   | 6 W         | 6 W         |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 1.55 kW     | 1.12 kW     |
| Annual energy consumption Qhe                       | 4551 kWh    | 5425 kWh    |
| Cdh Tj = -15 °C                                     | 1.00        | 1.00        |

#### EN 12102-1 | Warmer Climate

|                          | Low temperature | Medium temperature |
|--------------------------|-----------------|--------------------|
| Sound power level indoor | 49 dB(A)        | 49 dB(A)           |

#### EN 14825 | Warmer Climate

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_s$  | 183 %           | 134 %              |
| Prated  | 9.00 kW         | 8.00 kW            |
| SCOP  | 4.77            | 3.55               |
| Tbiv  | 5 °C            | 4 °C               |
| TOL   | 2 °C            | 2 °C               |
| Pdh Tj = +2°C                                       | 7.45 kW         | 6.88 kW            |
| COP Tj = +2°C                                       | 4.42            | 2.73               |
| Cdh Tj = +2 °C                                      | 1.00            | 1.00               |
| Pdh Tj = +7°C                                       | 7.53 kW         | 7.07 kW            |
| COP Tj = +7°C                                       | 4.75            | 3.26               |
| Cdh Tj = +7 °C                                      | 1.00            | 1.00               |
| Pdh Tj = 12°C                                       | 7.62 kW         | 7.31 kW            |
| COP Tj = 12°C                                       | 5.12            | 4.09               |
| Cdh Tj = +12 °C                                     | 1.00            | 1.00               |
| Pdh Tj = Tbiv                                       | 7.51 kW         | 6.98 kW            |
| COP Tj = Tbiv                                       | 4.66            | 2.99               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.45 kW         | 6.88 kW            |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 4.42            | 2.73               |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1.00            | 1.00               |
| WTOL  | 62 °C           | 62 °C              |
| Poff  | 6 W             | 6 W                |

|  |             |             |
|--|-------------|-------------|
| PTO  | 6 W         | 6 W         |
| PSB  | 6 W         | 6 W         |
| PCK  | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP                 | 1.55 kW     | 1.12 kW     |
| Annual energy consumption Q <sub>he</sub>  | 2521 kWh    | 3015 kWh    |