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|                     |  |          |            |
|---------------------|--|----------|------------|
| Summary of          | Bosch Compress 7000iAW 5 OR, Compress 6000 AW-5, Bosch CS7001iAW 5 | Reg. No. | 011-1W0122 |
| Certificate Holder  |  |          |            |
| Name                | Bosch Thermotechnik GmbH   |          |            |
| Address             | Junkersstraße 20 - 24  | Zip      | 73249      |
| City                | Wernau   | Country  | Germany    |
| Certification Body  | DIN CERTCO Gesellschaft für Konformitätsbewertung mbH              |          |            |
| Subtype title       | Bosch Compress 7000iAW 5 OR, Compress 6000 AW-5, Bosch CS7001iAW 5 |          |            |
| Heat Pump Type      | Outdoor Air/Water  |          |            |
| Refrigerant         | R410A  |          |            |
| Mass of Refrigerant | 1.7 kg   |          |            |
| Certification Date  | 18.07.2017   |          |            |
| Testing basis       | HP KEYMARK certification scheme rules rev. 8                       |          |            |

## Model: Bosch CS7000iAW 5 ORMS-S

| Configure model                     |                                 |
|-------------------------------------|---------------------------------|
| Model name                          | Bosch CS7000iAW 5 ORMS-S        |
| Application                         | Heating + DHW + low temp        |
| Units                               | Indoor + Outdoor                |
| Climate Zone                        | Colder Climate + Warmer Climate |
| Reversibility                       | Yes                             |
| Cooling mode application (optional) | n/a                             |

| General Data |             |
|--------------|-------------|
| Power supply | 3x400V 50Hz |

### Heating

| EN 14511-2  |                 |                    |
|-------------|-----------------|--------------------|
|             | Low temperature | Medium temperature |
| Heat output | 2.14 kW         | 1.88 kW            |
| El input    | 0.46 kW         | 0.72 kW            |
| COP         | 4.68            | 2.60               |

| EN 14511-4                                 |        |
|--|--------|
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure              | passed |
| Defrost test                               | passed |
| Starting and operating test                | passed |

### Warmer Climate

### EN 12102-1

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 25 dB(A)        | 25 dB(A)           |
| Sound power level outdoor | 47 dB(A)        | 47 dB(A)           |

### EN 14825

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_s$  | 224 %           | 161 %              |
| Prated  | 5.30 kW         | 5.60 kW            |
| SCOP  | 5.69            | 4.10               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | 2 °C            | 2 °C               |
| Pdh Tj = +2°C                                       | 5.28 kW         | 5.65 kW            |
| COP Tj = +2°C                                       | 3.08            | 2.22               |
| Pdh Tj = +7°C                                       | 3.22 kW         | 3.92 kW            |
| COP Tj = +7°C                                       | 5.31            | 3.54               |
| Pdh Tj = 12°C                                       | 1.50 kW         | 2.49 kW            |
| COP Tj = 12°C                                       | 6.79            | 5.35               |
| Pdh Tj = Tbiv                                       | 5.28 kW         | 5.65 kW            |
| COP Tj = Tbiv                                       | 3.08            | 2.22               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.28 kW         | 5.65 kW            |

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|   |             |             |
|---|-------------|-------------|
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.08        | 2.22        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 17 W        | 17 W        |
| PTO   | 22 W        | 22 W        |
| PSB   | 17 W        | 17 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.00 kW     |
| Annual energy consumption Qhe                       | 1245 kWh    | 1823 kWh    |

## Colder Climate

| <b>EN 12102-1</b>         |                        |                           |
|---------------------------|------------------------|---------------------------|
|                           | <b>Low temperature</b> | <b>Medium temperature</b> |
| Sound power level indoor  | 25 dB(A)               | 25 dB(A)                  |
| Sound power level outdoor | 47 dB(A)               | 47 dB(A)                  |

| <b>EN 14825</b> |                        |                           |
|-----------------|------------------------|---------------------------|
|                 | <b>Low temperature</b> | <b>Medium temperature</b> |
| $\eta_s$        | 159 %                  | 117 %                     |
| Prated          | 3.90 kW                | 4.00 kW                   |
| SCOP            | 4.04                   | 3.00                      |

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|   |             |             |
|---|-------------|-------------|
| Tbiv  | -17 °C      | -16 °C      |
| TOL   | -20 °C      | -18 °C      |
| Pdh Tj = -7°C                                       | 2.46 kW     | 2.32 kW     |
| COP Tj = -7°C                                       | 3.56        | 2.57        |
| Pdh Tj = +2°C                                       | 1.48 kW     | 1.79 kW     |
| COP Tj = +2°C                                       | 4.86        | 3.66        |
| Pdh Tj = +7°C                                       | 1.13 kW     | 2.13 kW     |
| COP Tj = +7°C                                       | 5.53        | 4.54        |
| Pdh Tj = 12°C                                       | 1.21 kW     | 2.55 kW     |
| COP Tj = 12°C                                       | 5.75        | 5.82        |
| Pdh Tj = Tbiv                                       | 3.43 kW     | 3.37 kW     |
| COP Tj = Tbiv                                       | 2.36        | 1.78        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 3.08 kW     | 3.11 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.16        | 1.61        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 17 W        | 17 W        |
| PTO   | 22 W        | 22 W        |
| PSB   | 17 W        | 17 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 3.90 kW     | 4.00 kW     |

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|  |          |          |
|--|----------|----------|
| Annual energy consumption $Q_{he}$                                   | 2378 kWh | 3287 kWh |
| $P_{dh} T_j = -15^{\circ}\text{C}$ (if $TOL < -20^{\circ}\text{C}$ ) | 3.27     | 1.88     |
| $COP T_j = -15^{\circ}\text{C}$ (if $TOL < -20^{\circ}\text{C}$ )    | 2.55     | 1.88     |

## Average Climate

| <b>EN 12102-1</b>         |                        |                           |
|---------------------------|------------------------|---------------------------|
|                           | <b>Low temperature</b> | <b>Medium temperature</b> |
| Sound power level indoor  | 25 dB(A)               | 25 dB(A)                  |
| Sound power level outdoor | 47 dB(A)               | 47 dB(A)                  |

| <b>EN 14825</b>                   |                        |                           |
|-----------------------------------|------------------------|---------------------------|
|                                   | <b>Low temperature</b> | <b>Medium temperature</b> |
| $\eta_s$                          | 183 %                  | 131 %                     |
| $P_{rated}$                       | 4.40 kW                | 4.10 kW                   |
| SCOP                              | 4.65                   | 3.34                      |
| $T_{biv}$                         | -10 °C                 | -10 °C                    |
| TOL                               | -10 °C                 | -10 °C                    |
| $P_{dh} T_j = -7^{\circ}\text{C}$ | 3.88 kW                | 3.57 kW                   |
| $COP T_j = -7^{\circ}\text{C}$    | 3.07                   | 2.16                      |
| $P_{dh} T_j = +2^{\circ}\text{C}$ | 2.51 kW                | 2.34 kW                   |
| $COP T_j = +2^{\circ}\text{C}$    | 4.69                   | 3.29                      |

This information was generated by the HP KEYMARK database on 22 Jun 2022

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = +7°C                                       | 1.50 kW     | 2.13 kW     |
| COP Tj = +7°C                                       | 5.78        | 4.29        |
| Pdh Tj = 12°C                                       | 1.23 kW     | 2.52 kW     |
| COP Tj = 12°C                                       | 6.13        | 5.53        |
| Pdh Tj = Tbiv                                       | 4.37 kW     | 4.05 kW     |
| COP Tj = Tbiv                                       | 2.76        | 1.85        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 4.37 kW     | 4.05 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.76        | 1.85        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1.00        | 1.00        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 17 W        | 17 W        |
| PTO   | 22 W        | 22 W        |
| PSB   | 17 W        | 17 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.00 kW     |
| Annual energy consumption Qhe                       | 1955 kWh    | 2533 kWh    |

## Domestic Hot Water (DHW)

### Warmer Climate

| <b>EN 16147</b>                 |             |
|---------------------------------|-------------|
| Declared load profile           | L           |
| Efficiency $\eta_{DHW}$         | 119 %       |
| COP                             | 2.80        |
| Heating up time                 | 03:00 h:min |
| Standby power input             | 47.0 W      |
| Reference hot water temperature | 54.2 °C     |
| Mixed water at 40°C             | 272 l       |

## Colder Climate

| <b>EN 16147</b>                 |             |
|---------------------------------|-------------|
| Declared load profile           | L           |
| Efficiency $\eta_{DHW}$         | 81 %        |
| COP                             | 1.90        |
| Heating up time                 | 04:18 h:min |
| Standby power input             | 65.0 W      |
| Reference hot water temperature | 52.4 °C     |
| Mixed water at 40°C             | 275 l       |

## Average Climate



This information was generated by the HP KEYMARK database on 22 Jun 2022

| <b>EN 16147</b>                 |             |
|---------------------------------|-------------|
| Declared load profile           | L           |
| Efficiency $\eta_{DHW}$         | 96 %        |
| COP                             | 2.25        |
| Heating up time                 | 03:30 h:min |
| Standby power input             | 55.0 W      |
| Reference hot water temperature | 52.1 °C     |
| Mixed water at 40°C             | 272 l       |

## Model: Bosch CS7000iAW 5 ORM-S

| Configure model                     |                                 |
|-------------------------------------|---------------------------------|
| Model name                          | Bosch CS7000iAW 5 ORM-S         |
| Application                         | Heating + DHW + low temp        |
| Units                               | Indoor + Outdoor                |
| Climate Zone                        | Colder Climate + Warmer Climate |
| Reversibility                       | Yes                             |
| Cooling mode application (optional) | n/a                             |

| General Data |             |
|--------------|-------------|
| Power supply | 3x400V 50Hz |

### Heating

| EN 14511-2  |                 |                    |
|-------------|-----------------|--------------------|
|             | Low temperature | Medium temperature |
| Heat output | 2.14 kW         | 1.88 kW            |
| El input    | 0.46 kW         | 0.72 kW            |
| COP         | 4.68            | 2.60               |

| EN 14511-4                                 |        |
|--|--------|
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure              | passed |
| Defrost test                               | passed |
| Starting and operating test                | passed |

### Warmer Climate

### EN 12102-1

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 25 dB(A)        | 25 dB(A)           |
| Sound power level outdoor | 47 dB(A)        | 47 dB(A)           |

### EN 14825

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_s$  | 224 %           | 161 %              |
| Prated  | 5.30 kW         | 5.60 kW            |
| SCOP  | 5.69            | 4.10               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | 2 °C            | 2 °C               |
| Pdh Tj = +2°C                                       | 5.28 kW         | 5.65 kW            |
| COP Tj = +2°C                                       | 3.08            | 2.22               |
| Pdh Tj = +7°C                                       | 3.22 kW         | 3.92 kW            |
| COP Tj = +7°C                                       | 5.31            | 3.54               |
| Pdh Tj = 12°C                                       | 1.50 kW         | 2.49 kW            |
| COP Tj = 12°C                                       | 6.79            | 5.35               |
| Pdh Tj = Tbiv                                       | 5.28 kW         | 5.65 kW            |
| COP Tj = Tbiv                                       | 3.08            | 2.22               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.28 kW         | 5.65 kW            |

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|   |             |             |
|---|-------------|-------------|
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.08        | 2.22        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 17 W        | 17 W        |
| PTO   | 22 W        | 22 W        |
| PSB   | 17 W        | 17 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.00 kW     |
| Annual energy consumption Qhe                       | 1245 kWh    | 1823 kWh    |

## Colder Climate

| <b>EN 12102-1</b>         |                        |                           |
|---------------------------|------------------------|---------------------------|
|                           | <b>Low temperature</b> | <b>Medium temperature</b> |
| Sound power level indoor  | 25 dB(A)               | 25 dB(A)                  |
| Sound power level outdoor | 47 dB(A)               | 47 dB(A)                  |

| <b>EN 14825</b> |                        |                           |
|-----------------|------------------------|---------------------------|
|                 | <b>Low temperature</b> | <b>Medium temperature</b> |
| $\eta_s$        | 159 %                  | 117 %                     |
| Prated          | 3.90 kW                | 4.00 kW                   |
| SCOP            | 4.04                   | 3.00                      |

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|   |             |             |
|---|-------------|-------------|
| Tbiv  | -17 °C      | -16 °C      |
| TOL   | -20 °C      | -18 °C      |
| Pdh Tj = -7°C                                       | 2.46 kW     | 2.32 kW     |
| COP Tj = -7°C                                       | 3.56        | 2.57        |
| Pdh Tj = +2°C                                       | 1.48 kW     | 1.79 kW     |
| COP Tj = +2°C                                       | 4.86        | 3.66        |
| Pdh Tj = +7°C                                       | 1.13 kW     | 2.13 kW     |
| COP Tj = +7°C                                       | 5.53        | 4.54        |
| Pdh Tj = 12°C                                       | 1.21 kW     | 2.55 kW     |
| COP Tj = 12°C                                       | 5.75        | 5.82        |
| Pdh Tj = Tbiv                                       | 3.43 kW     | 3.37 kW     |
| COP Tj = Tbiv                                       | 2.36        | 1.78        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 3.08 kW     | 3.11 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.16        | 1.61        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 17 W        | 17 W        |
| PTO   | 22 W        | 22 W        |
| PSB   | 17 W        | 17 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 3.90 kW     | 4.00 kW     |

This information was generated by the HP KEYMARK database on 22 Jun 2022

|  |          |          |
|--|----------|----------|
| Annual energy consumption $Q_{he}$                                   | 2378 kWh | 3287 kWh |
| $P_{dh} T_j = -15^{\circ}\text{C}$ (if $TOL < -20^{\circ}\text{C}$ ) | 3.27     | 1.88     |
| $COP T_j = -15^{\circ}\text{C}$ (if $TOL < -20^{\circ}\text{C}$ )    | 2.55     | 1.88     |

## Average Climate

| <b>EN 12102-1</b>         |                        |                           |
|---------------------------|------------------------|---------------------------|
|                           | <b>Low temperature</b> | <b>Medium temperature</b> |
| Sound power level indoor  | 25 dB(A)               | 25 dB(A)                  |
| Sound power level outdoor | 47 dB(A)               | 47 dB(A)                  |

| <b>EN 14825</b>                   |                        |                           |
|-----------------------------------|------------------------|---------------------------|
|                                   | <b>Low temperature</b> | <b>Medium temperature</b> |
| $\eta_s$                          | 183 %                  | 131 %                     |
| $P_{rated}$                       | 4.40 kW                | 4.10 kW                   |
| SCOP                              | 4.65                   | 3.34                      |
| $T_{biv}$                         | -10 °C                 | -10 °C                    |
| TOL                               | -10 °C                 | -10 °C                    |
| $P_{dh} T_j = -7^{\circ}\text{C}$ | 3.88 kW                | 3.57 kW                   |
| $COP T_j = -7^{\circ}\text{C}$    | 3.07                   | 2.16                      |
| $P_{dh} T_j = +2^{\circ}\text{C}$ | 2.51 kW                | 2.34 kW                   |
| $COP T_j = +2^{\circ}\text{C}$    | 4.69                   | 3.29                      |

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|   |             |             |
|---|-------------|-------------|
| Pdh Tj = +7°C                                       | 1.50 kW     | 2.13 kW     |
| COP Tj = +7°C                                       | 5.78        | 4.29        |
| Pdh Tj = 12°C                                       | 1.23 kW     | 2.52 kW     |
| COP Tj = 12°C                                       | 6.13        | 5.53        |
| Pdh Tj = Tbiv                                       | 4.37 kW     | 4.05 kW     |
| COP Tj = Tbiv                                       | 2.76        | 1.85        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 4.37 kW     | 4.05 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.76        | 1.85        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1.00        | 1.00        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 17 W        | 17 W        |
| PTO   | 22 W        | 22 W        |
| PSB   | 17 W        | 17 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.00 kW     |
| Annual energy consumption Qhe                       | 1955 kWh    | 2533 kWh    |

## Domestic Hot Water (DHW)

### Warmer Climate

| <b>EN 16147</b>                 |             |
|---------------------------------|-------------|
| Declared load profile           | L           |
| Efficiency $\eta_{DHW}$         | 119 %       |
| COP                             | 2.80        |
| Heating up time                 | 03:00 h:min |
| Standby power input             | 47.0 W      |
| Reference hot water temperature | 54.2 °C     |
| Mixed water at 40°C             | 272 l       |

## Colder Climate

| <b>EN 16147</b>                 |             |
|---------------------------------|-------------|
| Declared load profile           | L           |
| Efficiency $\eta_{DHW}$         | 81 %        |
| COP                             | 1.90        |
| Heating up time                 | 04:18 h:min |
| Standby power input             | 65.0 W      |
| Reference hot water temperature | 52.4 °C     |
| Mixed water at 40°C             | 275 l       |

## Average Climate



| <b>EN 16147</b>                 |             |
|---------------------------------|-------------|
| Declared load profile           | L           |
| Efficiency $\eta_{DHW}$         | 96 %        |
| COP                             | 2.25        |
| Heating up time                 | 03:30 h:min |
| Standby power input             | 55.0 W      |
| Reference hot water temperature | 52.1 °C     |
| Mixed water at 40°C             | 272 l       |

## Model: Bosch CS7000iAW 5 ORB-S

### Configure model

|                                     |                                 |
|-------------------------------------|---------------------------------|
| Model name                          | Bosch CS7000iAW 5 ORB-S         |
| Application                         | Heating (medium temp)           |
| Units                               | Indoor + Outdoor                |
| Climate Zone                        | Colder Climate + Warmer Climate |
| Reversibility                       | Yes                             |
| Cooling mode application (optional) | n/a                             |

### General Data

|              |             |
|--------------|-------------|
| Power supply | 1x230V 50Hz |
|--------------|-------------|

## Heating

### EN 14511-2

|             | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 2.14 kW         | 1.88 kW            |
| El input    | 0.46 kW         | 0.72 kW            |
| COP         | 4.68            | 2.60               |

### EN 14511-4

|  |        |
|--|--------|
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure              | passed |
| Defrost test                               | passed |
| Starting and operating test                | passed |

## Warmer Climate

### EN 12102-1

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 29 dB(A)        | 29 dB(A)           |
| Sound power level outdoor | 47 dB(A)        | 47 dB(A)           |

### EN 14825

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_s$  | 224 %           | 161 %              |
| Prated  | 5.30 kW         | 5.60 kW            |
| SCOP  | 5.69            | 4.10               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | 2 °C            | 2 °C               |
| Pdh Tj = +2°C                                       | 5.28 kW         | 5.65 kW            |
| COP Tj = +2°C                                       | 3.08            | 2.22               |
| Pdh Tj = +7°C                                       | 3.22 kW         | 3.92 kW            |
| COP Tj = +7°C                                       | 5.31            | 3.54               |
| Pdh Tj = 12°C                                       | 1.50 kW         | 2.49 kW            |
| COP Tj = 12°C                                       | 6.79            | 5.35               |
| Pdh Tj = Tbiv                                       | 5.28 kW         | 5.65 kW            |
| COP Tj = Tbiv                                       | 3.08            | 2.22               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.28 kW         | 5.65 kW            |

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|   |          |          |
|---|----------|----------|
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.08     | 2.22     |
| WTOL  | 60 °C    | 60 °C    |
| Poff  | 17 W     | 17 W     |
| PTO   | 22 W     | 22 W     |
| PSB   | 17 W     | 17 W     |
| PCK   | 0 W      | 0 W      |
| Supplementary Heater: Type of energy input          | n/a      | n/a      |
| Supplementary Heater: PSUP                          | 0.00 kW  | 0.00 kW  |
| Annual energy consumption Qhe                       | 1245 kWh | 1823 kWh |

## Colder Climate

| <b>EN 12102-1</b>         |                        |                           |
|---------------------------|------------------------|---------------------------|
|                           | <b>Low temperature</b> | <b>Medium temperature</b> |
| Sound power level indoor  | 29 dB(A)               | 29 dB(A)                  |
| Sound power level outdoor | 47 dB(A)               | 47 dB(A)                  |

| <b>EN 14825</b> |                        |                           |
|-----------------|------------------------|---------------------------|
|                 | <b>Low temperature</b> | <b>Medium temperature</b> |
| $\eta_s$        | 159 %                  | 117 %                     |
| Prated          | 3.90 kW                | 4.00 kW                   |
| SCOP            | 4.04                   | 3.00                      |

This information was generated by the HP KEYMARK database on 22 Jun 2022

|   |         |         |
|---|---------|---------|
| Tbiv  | -17 °C  | -16 °C  |
| TOL   | -20 °C  | -18 °C  |
| Pdh Tj = -7°C                                       | 2.46 kW | 2.32 kW |
| COP Tj = -7°C                                       | 3.56    | 2.57    |
| Pdh Tj = +2°C                                       | 1.48 kW | 1.79 kW |
| COP Tj = +2°C                                       | 4.86    | 3.66    |
| Pdh Tj = +7°C                                       | 1.13 kW | 2.13 kW |
| COP Tj = +7°C                                       | 5.53    | 4.54    |
| Pdh Tj = 12°C                                       | 1.21 kW | 2.55 kW |
| COP Tj = 12°C                                       | 5.75    | 5.82    |
| Pdh Tj = Tbiv                                       | 3.43 kW | 3.37 kW |
| COP Tj = Tbiv                                       | 2.36    | 1.78    |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 3.08 kW | 3.11 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.16    | 1.61    |
| WTOL  | 60 °C   | 60 °C   |
| Poff  | 17 W    | 17 W    |
| PTO   | 22 W    | 22 W    |
| PSB   | 17 W    | 17 W    |
| PCK   | 0 W     | 0 W     |
| Supplementary Heater: Type of energy input          | n/a     | n/a     |
| Supplementary Heater: PSUP                          | 0.00 kW | 0.00 kW |

This information was generated by the HP KEYMARK database on 22 Jun 2022

|  |          |          |
|--|----------|----------|
| Annual energy consumption $Q_{he}$                                   | 2378 kWh | 3287 kWh |
| $P_{dh} T_j = -15^{\circ}\text{C}$ (if $TOL < -20^{\circ}\text{C}$ ) | 3.27     | 1.88     |
| $COP T_j = -15^{\circ}\text{C}$ (if $TOL < -20^{\circ}\text{C}$ )    | 2.55     | 1.88     |

## Average Climate

| <b>EN 12102-1</b>         |                        |                           |
|---------------------------|------------------------|---------------------------|
|                           | <b>Low temperature</b> | <b>Medium temperature</b> |
| Sound power level indoor  | 29 dB(A)               | 29 dB(A)                  |
| Sound power level outdoor | 47 dB(A)               | 47 dB(A)                  |

| <b>EN 14825</b>                   |                        |                           |
|-----------------------------------|------------------------|---------------------------|
|                                   | <b>Low temperature</b> | <b>Medium temperature</b> |
| $\eta_s$                          | 183 %                  | 131 %                     |
| Prated                            | 4.40 kW                | 4.10 kW                   |
| SCOP                              | 4.65                   | 3.34                      |
| $T_{biv}$                         | $-10^{\circ}\text{C}$  | $-10^{\circ}\text{C}$     |
| TOL                               | $-10^{\circ}\text{C}$  | $-10^{\circ}\text{C}$     |
| $P_{dh} T_j = -7^{\circ}\text{C}$ | 3.88 kW                | 3.57 kW                   |
| $COP T_j = -7^{\circ}\text{C}$    | 3.07                   | 2.16                      |
| $C_{dh} T_j = -7^{\circ}\text{C}$ | 1.00                   | 1.00                      |
| $P_{dh} T_j = +2^{\circ}\text{C}$ | 2.51 kW                | 2.34 kW                   |

This information was generated by the HP KEYMARK database on 22 Jun 2022

|   |          |          |
|---|----------|----------|
| COP Tj = +2°C                                       | 4.69     | 3.29     |
| Cdh Tj = +2 °C                                      | 1.00     | 1.00     |
| Pdh Tj = +7°C                                       | 1.50 kW  | 2.13 kW  |
| COP Tj = +7°C                                       | 5.78     | 4.29     |
| Cdh Tj = +7 °C                                      | 1.00     | 1.00     |
| Pdh Tj = 12°C                                       | 1.23 kW  | 2.52 kW  |
| COP Tj = 12°C                                       | 6.13     | 5.53     |
| Cdh Tj = +12 °C                                     | 1.00     | 1.00     |
| Pdh Tj = Tbiv                                       | 4.37 kW  | 4.05 kW  |
| COP Tj = Tbiv                                       | 2.76     | 1.85     |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 4.37 kW  | 4.05 kW  |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.76     | 1.85     |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1.00     | 1.00     |
| WTOL  | 60 °C    | 60 °C    |
| Poff  | 17 W     | 17 W     |
| PTO   | 22 W     | 22 W     |
| PSB   | 17 W     | 17 W     |
| PCK   | 0 W      | 0 W      |
| Supplementary Heater: Type of energy input          | n/a      | n/a      |
| Supplementary Heater: PSUP                          | 0.00 kW  | 0.00 kW  |
| Annual energy consumption Qhe                       | 1955 kWh | 2533 kWh |

## Model: Bosch CS7000iAW 5 ORE-S

| Configure model                     |                                 |
|-------------------------------------|---------------------------------|
| Model name                          | Bosch CS7000iAW 5 ORE-S         |
| Application                         | Heating (medium temp)           |
| Units                               | Indoor + Outdoor                |
| Climate Zone                        | Colder Climate + Warmer Climate |
| Reversibility                       | Yes                             |
| Cooling mode application (optional) | n/a                             |

| General Data |             |
|--------------|-------------|
| Power supply | 3x400V 50Hz |

### Heating

| EN 14511-2  |                 |                    |
|-------------|-----------------|--------------------|
|             | Low temperature | Medium temperature |
| Heat output | 2.14 kW         | 1.88 kW            |
| El input    | 0.46 kW         | 0.72 kW            |
| COP         | 4.68            | 2.60               |

| EN 14511-4                                 |        |
|--|--------|
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure              | passed |
| Defrost test                               | passed |
| Starting and operating test                | passed |

### Warmer Climate



### EN 12102-1

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 29 dB(A)        | 29 dB(A)           |
| Sound power level outdoor | 47 dB(A)        | 47 dB(A)           |

### EN 14825

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_s$  | 224 %           | 161 %              |
| Prated  | 5.30 kW         | 5.60 kW            |
| SCOP  | 5.69            | 4.10               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | 2 °C            | 2 °C               |
| Pdh Tj = +2°C                                       | 5.28 kW         | 5.65 kW            |
| COP Tj = +2°C                                       | 3.08            | 2.22               |
| Pdh Tj = +7°C                                       | 3.22 kW         | 3.92 kW            |
| COP Tj = +7°C                                       | 5.31            | 3.54               |
| Pdh Tj = 12°C                                       | 1.50 kW         | 2.49 kW            |
| COP Tj = 12°C                                       | 6.79            | 5.35               |
| Pdh Tj = Tbiv                                       | 5.28 kW         | 5.65 kW            |
| COP Tj = Tbiv                                       | 3.08            | 2.22               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.28 kW         | 5.65 kW            |

This information was generated by the HP KEYMARK database on 22 Jun 2022

|   |             |             |
|---|-------------|-------------|
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.08        | 2.22        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 17 W        | 17 W        |
| PTO   | 22 W        | 22 W        |
| PSB   | 17 W        | 17 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.00 kW     |
| Annual energy consumption Qhe                       | 1245 kWh    | 1823 kWh    |

## Colder Climate

| <b>EN 12102-1</b>         |                        |                           |
|---------------------------|------------------------|---------------------------|
|                           | <b>Low temperature</b> | <b>Medium temperature</b> |
| Sound power level indoor  | 29 dB(A)               | 29 dB(A)                  |
| Sound power level outdoor | 47 dB(A)               | 47 dB(A)                  |

| <b>EN 14825</b> |                        |                           |
|-----------------|------------------------|---------------------------|
|                 | <b>Low temperature</b> | <b>Medium temperature</b> |
| $\eta_s$        | 159 %                  | 117 %                     |
| Prated          | 3.90 kW                | 4.00 kW                   |
| SCOP            | 4.04                   | 3.00                      |

This information was generated by the HP KEYMARK database on 22 Jun 2022

|   |             |             |
|---|-------------|-------------|
| Tbiv  | -17 °C      | -16 °C      |
| TOL   | -20 °C      | -18 °C      |
| Pdh Tj = -7°C                                       | 2.46 kW     | 2.32 kW     |
| COP Tj = -7°C                                       | 3.56        | 2.57        |
| Pdh Tj = +2°C                                       | 1.48 kW     | 1.79 kW     |
| COP Tj = +2°C                                       | 4.86        | 3.66        |
| Pdh Tj = +7°C                                       | 1.13 kW     | 2.13 kW     |
| COP Tj = +7°C                                       | 5.53        | 4.54        |
| Pdh Tj = 12°C                                       | 1.21 kW     | 2.55 kW     |
| COP Tj = 12°C                                       | 5.75        | 5.82        |
| Pdh Tj = Tbiv                                       | 3.43 kW     | 3.37 kW     |
| COP Tj = Tbiv                                       | 2.36        | 1.78        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 3.08 kW     | 3.11 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.16        | 1.61        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 17 W        | 17 W        |
| PTO   | 22 W        | 22 W        |
| PSB   | 17 W        | 17 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 3.90 kW     | 4.00 kW     |

This information was generated by the HP KEYMARK database on 22 Jun 2022

|  |          |          |
|--|----------|----------|
| Annual energy consumption $Q_{he}$                                   | 2378 kWh | 3287 kWh |
| $P_{dh} T_j = -15^{\circ}\text{C}$ (if $TOL < -20^{\circ}\text{C}$ ) | 3.27     | 1.88     |
| $COP T_j = -15^{\circ}\text{C}$ (if $TOL < -20^{\circ}\text{C}$ )    | 2.55     | 1.88     |

## Average Climate

| <b>EN 12102-1</b>         |                        |                           |
|---------------------------|------------------------|---------------------------|
|                           | <b>Low temperature</b> | <b>Medium temperature</b> |
| Sound power level indoor  | 29 dB(A)               | 29 dB(A)                  |
| Sound power level outdoor | 47 dB(A)               | 47 dB(A)                  |

| <b>EN 14825</b>                   |                        |                           |
|-----------------------------------|------------------------|---------------------------|
|                                   | <b>Low temperature</b> | <b>Medium temperature</b> |
| $\eta_s$                          | 183 %                  | 131 %                     |
| $P_{rated}$                       | 4.40 kW                | 4.10 kW                   |
| SCOP                              | 4.65                   | 3.34                      |
| $T_{biv}$                         | -10 °C                 | -10 °C                    |
| TOL                               | -10 °C                 | -10 °C                    |
| $P_{dh} T_j = -7^{\circ}\text{C}$ | 3.88 kW                | 3.57 kW                   |
| $COP T_j = -7^{\circ}\text{C}$    | 3.07                   | 2.16                      |
| $P_{dh} T_j = +2^{\circ}\text{C}$ | 2.51 kW                | 2.34 kW                   |
| $COP T_j = +2^{\circ}\text{C}$    | 4.69                   | 3.29                      |

This information was generated by the HP KEYMARK database on 22 Jun 2022

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = +7°C                                       | 1.50 kW     | 2.13 kW     |
| COP Tj = +7°C                                       | 5.78        | 4.29        |
| Pdh Tj = 12°C                                       | 1.23 kW     | 2.52 kW     |
| COP Tj = 12°C                                       | 6.13        | 5.53        |
| Pdh Tj = Tbiv                                       | 4.37 kW     | 4.05 kW     |
| COP Tj = Tbiv                                       | 2.76        | 1.85        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 4.37 kW     | 4.05 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.76        | 1.85        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1.00        | 1.00        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 17 W        | 17 W        |
| PTO   | 22 W        | 22 W        |
| PSB   | 17 W        | 17 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.00 kW     |
| Annual energy consumption Qhe                       | 1955 kWh    | 2533 kWh    |

## Model: Bosch Compress 6000 AW-5 AWE

| Configure model                     |                                 |
|-------------------------------------|---------------------------------|
| Model name                          | Bosch Compress 6000 AW-5 AWE    |
| Application                         | Heating (medium temp)           |
| Units                               | Indoor + Outdoor                |
| Climate Zone                        | Colder Climate + Warmer Climate |
| Reversibility                       | Yes                             |
| Cooling mode application (optional) | n/a                             |

| General Data |             |
|--------------|-------------|
| Power supply | 3x400V 50Hz |

### Heating

| EN 14511-2  |                 |                    |
|-------------|-----------------|--------------------|
|             | Low temperature | Medium temperature |
| Heat output | 2.14 kW         | 1.88 kW            |
| El input    | 0.46 kW         | 0.72 kW            |
| COP         | 4.68            | 2.60               |

| EN 14511-4                                 |        |
|--|--------|
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure              | passed |
| Defrost test                               | passed |
| Starting and operating test                | passed |

### Warmer Climate

### EN 12102-1

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 29 dB(A)        | 29 dB(A)           |
| Sound power level outdoor | 47 dB(A)        | 47 dB(A)           |

### EN 14825

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_s$  | 224 %           | 161 %              |
| Prated  | 5.30 kW         | 5.60 kW            |
| SCOP  | 5.69            | 4.10               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | 2 °C            | 2 °C               |
| Pdh Tj = +2°C                                       | 5.28 kW         | 5.65 kW            |
| COP Tj = +2°C                                       | 3.08            | 2.22               |
| Pdh Tj = +7°C                                       | 3.22 kW         | 3.92 kW            |
| COP Tj = +7°C                                       | 5.31            | 3.54               |
| Pdh Tj = 12°C                                       | 1.50 kW         | 2.49 kW            |
| COP Tj = 12°C                                       | 6.79            | 5.35               |
| Pdh Tj = Tbiv                                       | 5.28 kW         | 5.65 kW            |
| COP Tj = Tbiv                                       | 3.08            | 2.22               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.28 kW         | 5.65 kW            |

This information was generated by the HP KEYMARK database on 22 Jun 2022

|   |             |             |
|---|-------------|-------------|
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.08        | 2.22        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 17 W        | 17 W        |
| PTO   | 22 W        | 22 W        |
| PSB   | 17 W        | 17 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.00 kW     |
| Annual energy consumption Qhe                       | 1245 kWh    | 1823 kWh    |

## Colder Climate

| <b>EN 12102-1</b>         |                        |                           |
|---------------------------|------------------------|---------------------------|
|                           | <b>Low temperature</b> | <b>Medium temperature</b> |
| Sound power level indoor  | 29 dB(A)               | 29 dB(A)                  |
| Sound power level outdoor | 47 dB(A)               | 47 dB(A)                  |

| <b>EN 14825</b> |                        |                           |
|-----------------|------------------------|---------------------------|
|                 | <b>Low temperature</b> | <b>Medium temperature</b> |
| $\eta_s$        | 159 %                  | 117 %                     |
| Prated          | 3.90 kW                | 4.00 kW                   |
| SCOP            | 4.04                   | 3.00                      |



This information was generated by the HP KEYMARK database on 22 Jun 2022

|   |             |             |
|---|-------------|-------------|
| Tbiv  | -17 °C      | -16 °C      |
| TOL   | -20 °C      | -18 °C      |
| Pdh Tj = -7°C                                       | 2.46 kW     | 2.32 kW     |
| COP Tj = -7°C                                       | 3.56        | 2.57        |
| Pdh Tj = +2°C                                       | 1.48 kW     | 1.79 kW     |
| COP Tj = +2°C                                       | 4.86        | 3.66        |
| Pdh Tj = +7°C                                       | 1.13 kW     | 2.13 kW     |
| COP Tj = +7°C                                       | 5.53        | 4.54        |
| Pdh Tj = 12°C                                       | 1.21 kW     | 2.55 kW     |
| COP Tj = 12°C                                       | 5.75        | 5.82        |
| Pdh Tj = Tbiv                                       | 3.43 kW     | 3.37 kW     |
| COP Tj = Tbiv                                       | 2.36        | 1.78        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 3.08 kW     | 3.11 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.16        | 1.61        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 17 W        | 17 W        |
| PTO   | 22 W        | 22 W        |
| PSB   | 17 W        | 17 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 3.90 kW     | 4.00 kW     |

This information was generated by the HP KEYMARK database on 22 Jun 2022

|  |          |          |
|--|----------|----------|
| Annual energy consumption $Q_{he}$                                   | 2378 kWh | 3287 kWh |
| $P_{dh} T_j = -15^{\circ}\text{C}$ (if $TOL < -20^{\circ}\text{C}$ ) | 3.27     | 1.88     |
| $COP T_j = -15^{\circ}\text{C}$ (if $TOL < -20^{\circ}\text{C}$ )    | 2.55     | 1.88     |

## Average Climate

| <b>EN 12102-1</b>         |                        |                           |
|---------------------------|------------------------|---------------------------|
|                           | <b>Low temperature</b> | <b>Medium temperature</b> |
| Sound power level indoor  | 29 dB(A)               | 29 dB(A)                  |
| Sound power level outdoor | 47 dB(A)               | 47 dB(A)                  |

| <b>EN 14825</b>                   |                        |                           |
|-----------------------------------|------------------------|---------------------------|
|                                   | <b>Low temperature</b> | <b>Medium temperature</b> |
| $\eta_s$                          | 183 %                  | 131 %                     |
| $P_{rated}$                       | 4.40 kW                | 4.10 kW                   |
| SCOP                              | 4.65                   | 3.34                      |
| $T_{biv}$                         | -10 °C                 | -10 °C                    |
| TOL                               | -10 °C                 | -10 °C                    |
| $P_{dh} T_j = -7^{\circ}\text{C}$ | 3.88 kW                | 3.57 kW                   |
| $COP T_j = -7^{\circ}\text{C}$    | 3.07                   | 2.16                      |
| $P_{dh} T_j = +2^{\circ}\text{C}$ | 2.51 kW                | 2.34 kW                   |
| $COP T_j = +2^{\circ}\text{C}$    | 4.69                   | 3.29                      |

This information was generated by the HP KEYMARK database on 22 Jun 2022

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = +7°C                                       | 1.50 kW     | 2.13 kW     |
| COP Tj = +7°C                                       | 5.78        | 4.29        |
| Pdh Tj = 12°C                                       | 1.23 kW     | 2.52 kW     |
| COP Tj = 12°C                                       | 6.13        | 5.53        |
| Pdh Tj = Tbiv                                       | 4.37 kW     | 4.05 kW     |
| COP Tj = Tbiv                                       | 2.76        | 1.85        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 4.37 kW     | 4.05 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.76        | 1.85        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1.00        | 1.00        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 17 W        | 17 W        |
| PTO   | 22 W        | 22 W        |
| PSB   | 17 W        | 17 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.00 kW     |
| Annual energy consumption Qhe                       | 1955 kWh    | 2533 kWh    |

## Model: Bosch Compress 6000 AW-5 AWB

| Configure model                     |                                 |
|-------------------------------------|---------------------------------|
| Model name                          | Bosch Compress 6000 AW-5 AWB    |
| Application                         | Heating (medium temp)           |
| Units                               | Indoor + Outdoor                |
| Climate Zone                        | Colder Climate + Warmer Climate |
| Reversibility                       | Yes                             |
| Cooling mode application (optional) | n/a                             |

| General Data |             |
|--------------|-------------|
| Power supply | 1x230V 50Hz |

### Heating

| EN 14511-2  |                 |                    |
|-------------|-----------------|--------------------|
|             | Low temperature | Medium temperature |
| Heat output | 2.14 kW         | 1.88 kW            |
| El input    | 0.46 kW         | 0.72 kW            |
| COP         | 4.68            | 2.60               |

| EN 14511-4                                 |        |
|--|--------|
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure              | passed |
| Defrost test                               | passed |
| Starting and operating test                | passed |

### Warmer Climate

### EN 12102-1

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 29 dB(A)        | 29 dB(A)           |
| Sound power level outdoor | 47 dB(A)        | 47 dB(A)           |

### EN 14825

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_s$  | 224 %           | 161 %              |
| Prated  | 5.30 kW         | 5.60 kW            |
| SCOP  | 5.69            | 4.10               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | 2 °C            | 2 °C               |
| Pdh Tj = +2°C                                       | 5.28 kW         | 5.65 kW            |
| COP Tj = +2°C                                       | 3.08            | 2.22               |
| Pdh Tj = +7°C                                       | 3.22 kW         | 3.92 kW            |
| COP Tj = +7°C                                       | 5.31            | 3.54               |
| Pdh Tj = 12°C                                       | 1.50 kW         | 2.49 kW            |
| COP Tj = 12°C                                       | 6.79            | 5.35               |
| Pdh Tj = Tbiv                                       | 5.28 kW         | 5.65 kW            |
| COP Tj = Tbiv                                       | 3.08            | 2.22               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.28 kW         | 5.65 kW            |

This information was generated by the HP KEYMARK database on 22 Jun 2022

|   |          |          |
|---|----------|----------|
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.08     | 2.22     |
| WTOL  | 60 °C    | 60 °C    |
| Poff  | 17 W     | 17 W     |
| PTO   | 22 W     | 22 W     |
| PSB   | 17 W     | 17 W     |
| PCK   | 0 W      | 0 W      |
| Supplementary Heater: Type of energy input          | n/a      | n/a      |
| Supplementary Heater: PSUP                          | 0.00 kW  | 0.00 kW  |
| Annual energy consumption Qhe                       | 1245 kWh | 1823 kWh |

## Colder Climate

| <b>EN 12102-1</b>         |                        |                           |
|---------------------------|------------------------|---------------------------|
|                           | <b>Low temperature</b> | <b>Medium temperature</b> |
| Sound power level indoor  | 29 dB(A)               | 29 dB(A)                  |
| Sound power level outdoor | 47 dB(A)               | 47 dB(A)                  |

| <b>EN 14825</b> |                        |                           |
|-----------------|------------------------|---------------------------|
|                 | <b>Low temperature</b> | <b>Medium temperature</b> |
| $\eta_s$        | 159 %                  | 117 %                     |
| Prated          | 3.90 kW                | 4.00 kW                   |
| SCOP            | 4.04                   | 3.00                      |

This information was generated by the HP KEYMARK database on 22 Jun 2022

|   |         |         |
|---|---------|---------|
| Tbiv  | -17 °C  | -16 °C  |
| TOL   | -20 °C  | -18 °C  |
| Pdh Tj = -7°C                                       | 2.46 kW | 2.32 kW |
| COP Tj = -7°C                                       | 3.56    | 2.57    |
| Pdh Tj = +2°C                                       | 1.48 kW | 1.79 kW |
| COP Tj = +2°C                                       | 4.86    | 3.66    |
| Pdh Tj = +7°C                                       | 1.13 kW | 2.13 kW |
| COP Tj = +7°C                                       | 5.53    | 4.54    |
| Pdh Tj = 12°C                                       | 1.21 kW | 2.55 kW |
| COP Tj = 12°C                                       | 5.75    | 5.82    |
| Pdh Tj = Tbiv                                       | 3.43 kW | 3.37 kW |
| COP Tj = Tbiv                                       | 2.36    | 1.78    |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 3.08 kW | 3.11 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.16    | 1.61    |
| WTOL  | 60 °C   | 60 °C   |
| Poff  | 17 W    | 17 W    |
| PTO   | 22 W    | 22 W    |
| PSB   | 17 W    | 17 W    |
| PCK   | 0 W     | 0 W     |
| Supplementary Heater: Type of energy input          | n/a     | n/a     |
| Supplementary Heater: PSUP                          | 0.00 kW | 0.00 kW |

This information was generated by the HP KEYMARK database on 22 Jun 2022

|  |          |          |
|--|----------|----------|
| Annual energy consumption $Q_{he}$                                   | 2378 kWh | 3287 kWh |
| $P_{dh} T_j = -15^{\circ}\text{C}$ (if $TOL < -20^{\circ}\text{C}$ ) | 3.27     | 1.88     |
| $COP T_j = -15^{\circ}\text{C}$ (if $TOL < -20^{\circ}\text{C}$ )    | 2.55     | 1.88     |

## Average Climate

| <b>EN 12102-1</b>         |                        |                           |
|---------------------------|------------------------|---------------------------|
|                           | <b>Low temperature</b> | <b>Medium temperature</b> |
| Sound power level indoor  | 29 dB(A)               | 29 dB(A)                  |
| Sound power level outdoor | 47 dB(A)               | 47 dB(A)                  |

| <b>EN 14825</b>                   |                        |                           |
|-----------------------------------|------------------------|---------------------------|
|                                   | <b>Low temperature</b> | <b>Medium temperature</b> |
| $\eta_s$                          | 183 %                  | 131 %                     |
| Prated                            | 4.40 kW                | 4.10 kW                   |
| SCOP                              | 4.65                   | 3.34                      |
| $T_{biv}$                         | -10 °C                 | -10 °C                    |
| TOL                               | -10 °C                 | -10 °C                    |
| $P_{dh} T_j = -7^{\circ}\text{C}$ | 3.88 kW                | 3.57 kW                   |
| $COP T_j = -7^{\circ}\text{C}$    | 3.07                   | 2.16                      |
| $P_{dh} T_j = +2^{\circ}\text{C}$ | 2.51 kW                | 2.34 kW                   |
| $COP T_j = +2^{\circ}\text{C}$    | 4.69                   | 3.29                      |



This information was generated by the HP KEYMARK database on 22 Jun 2022

|   |          |          |
|---|----------|----------|
| Pdh Tj = +7°C                                       | 1.50 kW  | 2.13 kW  |
| COP Tj = +7°C                                       | 5.78     | 4.29     |
| Pdh Tj = 12°C                                       | 1.23 kW  | 2.52 kW  |
| COP Tj = 12°C                                       | 6.13     | 5.53     |
| Pdh Tj = Tbiv                                       | 4.37 kW  | 4.05 kW  |
| COP Tj = Tbiv                                       | 2.76     | 1.85     |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 4.37 kW  | 4.05 kW  |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.76     | 1.85     |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1.00     | 1.00     |
| WTOL  | 60 °C    | 60 °C    |
| Poff  | 17 W     | 17 W     |
| PTO   | 22 W     | 22 W     |
| PSB   | 17 W     | 17 W     |
| PCK   | 0 W      | 0 W      |
| Supplementary Heater: Type of energy input          | n/a      | n/a      |
| Supplementary Heater: PSUP                          | 0.00 kW  | 0.00 kW  |
| Annual energy consumption Qhe                       | 1955 kWh | 2533 kWh |

# Model: Bosch Compress 6000 AW-5 AWM

| Configure model                     |                                 |
|-------------------------------------|---------------------------------|
| Model name                          | Bosch Compress 6000 AW-5 AWM    |
| Application                         | Heating + DHW + low temp        |
| Units                               | Indoor + Outdoor                |
| Climate Zone                        | Colder Climate + Warmer Climate |
| Reversibility                       | Yes                             |
| Cooling mode application (optional) | n/a                             |

| General Data |             |
|--------------|-------------|
| Power supply | 3x400V 50Hz |

## Heating

| EN 14511-2  |                 |                    |
|-------------|-----------------|--------------------|
|             | Low temperature | Medium temperature |
| Heat output | 2.14 kW         | 1.88 kW            |
| El input    | 0.46 kW         | 0.72 kW            |
| COP         | 4.68            | 2.60               |

| EN 14511-4                                 |        |
|--|--------|
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure              | passed |
| Defrost test                               | passed |
| Starting and operating test                | passed |

## Warmer Climate

### EN 12102-1

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 25 dB(A)        | 25 dB(A)           |
| Sound power level outdoor | 47 dB(A)        | 47 dB(A)           |

### EN 14825

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_s$  | 224 %           | 161 %              |
| Prated  | 5.30 kW         | 5.60 kW            |
| SCOP  | 5.69            | 4.10               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | 2 °C            | 2 °C               |
| Pdh Tj = +2°C                                       | 5.28 kW         | 5.65 kW            |
| COP Tj = +2°C                                       | 3.08            | 2.22               |
| Pdh Tj = +7°C                                       | 3.22 kW         | 3.92 kW            |
| COP Tj = +7°C                                       | 5.31            | 3.54               |
| Pdh Tj = 12°C                                       | 1.50 kW         | 2.49 kW            |
| COP Tj = 12°C                                       | 6.79            | 5.35               |
| Pdh Tj = Tbiv                                       | 5.28 kW         | 5.65 kW            |
| COP Tj = Tbiv                                       | 3.08            | 2.22               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.28 kW         | 5.65 kW            |

This information was generated by the HP KEYMARK database on 22 Jun 2022

|   |             |             |
|---|-------------|-------------|
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.08        | 2.22        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 17 W        | 17 W        |
| PTO   | 22 W        | 22 W        |
| PSB   | 17 W        | 17 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.00 kW     |
| Annual energy consumption Qhe                       | 1245 kWh    | 1823 kWh    |

## Colder Climate

| <b>EN 12102-1</b>         |                        |                           |
|---------------------------|------------------------|---------------------------|
|                           | <b>Low temperature</b> | <b>Medium temperature</b> |
| Sound power level indoor  | 25 dB(A)               | 25 dB(A)                  |
| Sound power level outdoor | 47 dB(A)               | 47 dB(A)                  |

| <b>EN 14825</b> |                        |                           |
|-----------------|------------------------|---------------------------|
|                 | <b>Low temperature</b> | <b>Medium temperature</b> |
| $\eta_s$        | 159 %                  | 117 %                     |
| Prated          | 3.90 kW                | 4.00 kW                   |
| SCOP            | 4.04                   | 3.00                      |

This information was generated by the HP KEYMARK database on 22 Jun 2022

|   |             |             |
|---|-------------|-------------|
| Tbiv  | -17 °C      | -16 °C      |
| TOL   | -20 °C      | -18 °C      |
| Pdh Tj = -7°C                                       | 2.46 kW     | 2.32 kW     |
| COP Tj = -7°C                                       | 3.56        | 2.57        |
| Pdh Tj = +2°C                                       | 1.48 kW     | 1.79 kW     |
| COP Tj = +2°C                                       | 4.86        | 3.66        |
| Pdh Tj = +7°C                                       | 1.13 kW     | 2.13 kW     |
| COP Tj = +7°C                                       | 5.53        | 4.54        |
| Pdh Tj = 12°C                                       | 1.21 kW     | 2.55 kW     |
| COP Tj = 12°C                                       | 5.75        | 5.82        |
| Pdh Tj = Tbiv                                       | 3.43 kW     | 3.37 kW     |
| COP Tj = Tbiv                                       | 2.36        | 1.78        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 3.08 kW     | 3.11 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.16        | 1.61        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 17 W        | 17 W        |
| PTO   | 22 W        | 22 W        |
| PSB   | 17 W        | 17 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 3.90 kW     | 4.00 kW     |

This information was generated by the HP KEYMARK database on 22 Jun 2022

|  |          |          |
|--|----------|----------|
| Annual energy consumption $Q_{he}$                                   | 2378 kWh | 3287 kWh |
| $P_{dh} T_j = -15^{\circ}\text{C}$ (if $TOL < -20^{\circ}\text{C}$ ) | 3.27     | 1.88     |
| $COP T_j = -15^{\circ}\text{C}$ (if $TOL < -20^{\circ}\text{C}$ )    | 2.55     | 1.88     |

## Average Climate

| <b>EN 12102-1</b>         |                        |                           |
|---------------------------|------------------------|---------------------------|
|                           | <b>Low temperature</b> | <b>Medium temperature</b> |
| Sound power level indoor  | 25 dB(A)               | 25 dB(A)                  |
| Sound power level outdoor | 47 dB(A)               | 47 dB(A)                  |

| <b>EN 14825</b>                   |                        |                           |
|-----------------------------------|------------------------|---------------------------|
|                                   | <b>Low temperature</b> | <b>Medium temperature</b> |
| $\eta_s$                          | 183 %                  | 131 %                     |
| $P_{rated}$                       | 4.40 kW                | 4.10 kW                   |
| SCOP                              | 4.65                   | 3.34                      |
| $T_{biv}$                         | -10 °C                 | -10 °C                    |
| TOL                               | -10 °C                 | -10 °C                    |
| $P_{dh} T_j = -7^{\circ}\text{C}$ | 3.88 kW                | 3.57 kW                   |
| $COP T_j = -7^{\circ}\text{C}$    | 3.07                   | 2.16                      |
| $P_{dh} T_j = +2^{\circ}\text{C}$ | 2.51 kW                | 2.34 kW                   |
| $COP T_j = +2^{\circ}\text{C}$    | 4.69                   | 3.29                      |

This information was generated by the HP KEYMARK database on 22 Jun 2022

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = +7°C                                       | 1.50 kW     | 2.13 kW     |
| COP Tj = +7°C                                       | 5.78        | 4.29        |
| Pdh Tj = 12°C                                       | 1.23 kW     | 2.52 kW     |
| COP Tj = 12°C                                       | 6.13        | 5.53        |
| Pdh Tj = Tbiv                                       | 4.37 kW     | 4.05 kW     |
| COP Tj = Tbiv                                       | 2.76        | 1.85        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 4.37 kW     | 4.05 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.76        | 1.85        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1.00        | 1.00        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 17 W        | 17 W        |
| PTO   | 22 W        | 22 W        |
| PSB   | 17 W        | 17 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.00 kW     |
| Annual energy consumption Qhe                       | 1955 kWh    | 2533 kWh    |

## Domestic Hot Water (DHW)

### Warmer Climate

| <b>EN 16147</b>                 |             |
|---------------------------------|-------------|
| Declared load profile           | L           |
| Efficiency $\eta_{DHW}$         | 119 %       |
| COP                             | 2.80        |
| Heating up time                 | 03:00 h:min |
| Standby power input             | 47.0 W      |
| Reference hot water temperature | 54.2 °C     |
| Mixed water at 40°C             | 272 l       |

## Colder Climate

| <b>EN 16147</b>                 |             |
|---------------------------------|-------------|
| Declared load profile           | L           |
| Efficiency $\eta_{DHW}$         | 81 %        |
| COP                             | 1.90        |
| Heating up time                 | 04:18 h:min |
| Standby power input             | 65.0 W      |
| Reference hot water temperature | 52.4 °C     |
| Mixed water at 40°C             | 275 l       |

## Average Climate



| <b>EN 16147</b>                 |             |
|---------------------------------|-------------|
| Declared load profile           | L           |
| Efficiency $\eta_{DHW}$         | 96 %        |
| COP                             | 2.25        |
| Heating up time                 | 03:30 h:min |
| Standby power input             | 55.0 W      |
| Reference hot water temperature | 52.1 °C     |
| Mixed water at 40°C             | 272 l       |

# Model: Bosch Compress 6000 AW-5 AWMS

| Configure model                     |                                 |
|-------------------------------------|---------------------------------|
| Model name                          | Bosch Compress 6000 AW-5 AWMS   |
| Application                         | Heating + DHW + low temp        |
| Units                               | Indoor + Outdoor                |
| Climate Zone                        | Colder Climate + Warmer Climate |
| Reversibility                       | Yes                             |
| Cooling mode application (optional) | n/a                             |

| General Data |             |
|--------------|-------------|
| Power supply | 3x400V 50Hz |

## Heating

| EN 14511-2  |                 |                    |
|-------------|-----------------|--------------------|
|             | Low temperature | Medium temperature |
| Heat output | 2.14 kW         | 1.88 kW            |
| El input    | 0.46 kW         | 0.72 kW            |
| COP         | 4.68            | 2.60               |

| EN 14511-4                                 |        |
|--|--------|
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure              | passed |
| Defrost test                               | passed |
| Starting and operating test                | passed |

## Warmer Climate

### EN 12102-1

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 25 dB(A)        | 25 dB(A)           |
| Sound power level outdoor | 47 dB(A)        | 47 dB(A)           |

### EN 14825

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_s$  | 224 %           | 161 %              |
| Prated  | 5.30 kW         | 5.60 kW            |
| SCOP  | 5.69            | 4.10               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | 2 °C            | 2 °C               |
| Pdh Tj = +2°C                                       | 5.28 kW         | 5.65 kW            |
| COP Tj = +2°C                                       | 3.08            | 2.22               |
| Pdh Tj = +7°C                                       | 3.22 kW         | 3.92 kW            |
| COP Tj = +7°C                                       | 5.31            | 3.54               |
| Pdh Tj = 12°C                                       | 1.50 kW         | 2.49 kW            |
| COP Tj = 12°C                                       | 6.79            | 5.35               |
| Pdh Tj = Tbiv                                       | 5.28 kW         | 5.65 kW            |
| COP Tj = Tbiv                                       | 3.08            | 2.22               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.28 kW         | 5.65 kW            |

This information was generated by the HP KEYMARK database on 22 Jun 2022

|   |             |             |
|---|-------------|-------------|
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.08        | 2.22        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 17 W        | 17 W        |
| PTO   | 22 W        | 22 W        |
| PSB   | 17 W        | 17 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.00 kW     |
| Annual energy consumption Qhe                       | 1245 kWh    | 1823 kWh    |

## Colder Climate

| <b>EN 12102-1</b>         |                        |                           |
|---------------------------|------------------------|---------------------------|
|                           | <b>Low temperature</b> | <b>Medium temperature</b> |
| Sound power level indoor  | 25 dB(A)               | 25 dB(A)                  |
| Sound power level outdoor | 47 dB(A)               | 47 dB(A)                  |

| <b>EN 14825</b> |                        |                           |
|-----------------|------------------------|---------------------------|
|                 | <b>Low temperature</b> | <b>Medium temperature</b> |
| $\eta_s$        | 159 %                  | 117 %                     |
| Prated          | 3.90 kW                | 4.00 kW                   |
| SCOP            | 4.04                   | 3.00                      |

This information was generated by the HP KEYMARK database on 22 Jun 2022

|   |             |             |
|---|-------------|-------------|
| Tbiv  | -17 °C      | -16 °C      |
| TOL   | -20 °C      | -18 °C      |
| Pdh Tj = -7°C                                       | 2.46 kW     | 2.32 kW     |
| COP Tj = -7°C                                       | 3.56        | 2.57        |
| Pdh Tj = +2°C                                       | 1.48 kW     | 1.79 kW     |
| COP Tj = +2°C                                       | 4.86        | 3.66        |
| Pdh Tj = +7°C                                       | 1.13 kW     | 2.13 kW     |
| COP Tj = +7°C                                       | 5.53        | 4.54        |
| Pdh Tj = 12°C                                       | 1.21 kW     | 2.55 kW     |
| COP Tj = 12°C                                       | 5.75        | 5.82        |
| Pdh Tj = Tbiv                                       | 3.43 kW     | 3.37 kW     |
| COP Tj = Tbiv                                       | 2.36        | 1.78        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 3.08 kW     | 3.11 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.16        | 1.61        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 17 W        | 17 W        |
| PTO   | 22 W        | 22 W        |
| PSB   | 17 W        | 17 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 3.90 kW     | 4.00 kW     |

This information was generated by the HP KEYMARK database on 22 Jun 2022

|  |          |          |
|--|----------|----------|
| Annual energy consumption $Q_{he}$                                   | 2378 kWh | 3287 kWh |
| $P_{dh} T_j = -15^{\circ}\text{C}$ (if $TOL < -20^{\circ}\text{C}$ ) | 3.27     | 1.88     |
| $COP T_j = -15^{\circ}\text{C}$ (if $TOL < -20^{\circ}\text{C}$ )    | 2.55     | 1.88     |

## Average Climate

| <b>EN 12102-1</b>         |                        |                           |
|---------------------------|------------------------|---------------------------|
|                           | <b>Low temperature</b> | <b>Medium temperature</b> |
| Sound power level indoor  | 25 dB(A)               | 25 dB(A)                  |
| Sound power level outdoor | 47 dB(A)               | 47 dB(A)                  |

| <b>EN 14825</b>                   |                        |                           |
|-----------------------------------|------------------------|---------------------------|
|                                   | <b>Low temperature</b> | <b>Medium temperature</b> |
| $\eta_s$                          | 183 %                  | 131 %                     |
| $P_{rated}$                       | 4.40 kW                | 4.10 kW                   |
| SCOP                              | 4.65                   | 3.34                      |
| $T_{biv}$                         | -10 °C                 | -10 °C                    |
| TOL                               | -10 °C                 | -10 °C                    |
| $P_{dh} T_j = -7^{\circ}\text{C}$ | 3.88 kW                | 3.57 kW                   |
| $COP T_j = -7^{\circ}\text{C}$    | 3.07                   | 2.16                      |
| $P_{dh} T_j = +2^{\circ}\text{C}$ | 2.51 kW                | 2.34 kW                   |
| $COP T_j = +2^{\circ}\text{C}$    | 4.69                   | 3.29                      |

This information was generated by the HP KEYMARK database on 22 Jun 2022

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = +7°C                                       | 1.50 kW     | 2.13 kW     |
| COP Tj = +7°C                                       | 5.78        | 4.29        |
| Pdh Tj = 12°C                                       | 1.23 kW     | 2.52 kW     |
| COP Tj = 12°C                                       | 6.13        | 5.53        |
| Pdh Tj = Tbiv                                       | 4.37 kW     | 4.05 kW     |
| COP Tj = Tbiv                                       | 2.76        | 1.85        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 4.37 kW     | 4.05 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.76        | 1.85        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1.00        | 1.00        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 17 W        | 17 W        |
| PTO   | 22 W        | 22 W        |
| PSB   | 17 W        | 17 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.00 kW     |
| Annual energy consumption Qhe                       | 1955 kWh    | 2533 kWh    |

## Domestic Hot Water (DHW)

### Warmer Climate

| <b>EN 16147</b>                 |             |
|---------------------------------|-------------|
| Declared load profile           | L           |
| Efficiency $\eta_{DHW}$         | 119 %       |
| COP                             | 2.80        |
| Heating up time                 | 03:00 h:min |
| Standby power input             | 47.0 W      |
| Reference hot water temperature | 54.2 °C     |
| Mixed water at 40°C             | 272 l       |

## Colder Climate

| <b>EN 16147</b>                 |             |
|---------------------------------|-------------|
| Declared load profile           | L           |
| Efficiency $\eta_{DHW}$         | 81 %        |
| COP                             | 1.90        |
| Heating up time                 | 04:18 h:min |
| Standby power input             | 65.0 W      |
| Reference hot water temperature | 52.4 °C     |
| Mixed water at 40°C             | 275 l       |

## Average Climate



| <b>EN 16147</b>                 |             |
|---------------------------------|-------------|
| Declared load profile           | L           |
| Efficiency $\eta_{DHW}$         | 96 %        |
| COP                             | 2.25        |
| Heating up time                 | 03:30 h:min |
| Standby power input             | 55.0 W      |
| Reference hot water temperature | 52.1 °C     |
| Mixed water at 40°C             | 272 l       |

## Model: Bosch CS7001iAW 5 ORE-S

| Configure model                     |                                 |
|-------------------------------------|---------------------------------|
| Model name                          | Bosch CS7001iAW 5 ORE-S         |
| Application                         | Heating (medium temp)           |
| Units                               | Indoor + Outdoor                |
| Climate Zone                        | Colder Climate + Warmer Climate |
| Reversibility                       | Yes                             |
| Cooling mode application (optional) | n/a                             |

| General Data |             |
|--------------|-------------|
| Power supply | 3x400V 50Hz |

### Heating

| EN 14511-2  |                 |                    |
|-------------|-----------------|--------------------|
|             | Low temperature | Medium temperature |
| Heat output | 2.14 kW         | 1.88 kW            |
| El input    | 0.46 kW         | 0.72 kW            |
| COP         | 4.68            | 2.60               |

| EN 14511-4                                 |        |
|--|--------|
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure              | passed |
| Defrost test                               | passed |
| Starting and operating test                | passed |

### Warmer Climate

### EN 12102-1

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 29 dB(A)        | 29 dB(A)           |
| Sound power level outdoor | 47 dB(A)        | 47 dB(A)           |

### EN 14825

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_s$  | 224 %           | 161 %              |
| Prated  | 5.30 kW         | 5.60 kW            |
| SCOP  | 5.69            | 4.10               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | 2 °C            | 2 °C               |
| Pdh Tj = +2°C                                       | 5.28 kW         | 5.65 kW            |
| COP Tj = +2°C                                       | 3.08            | 2.22               |
| Pdh Tj = +7°C                                       | 3.22 kW         | 3.92 kW            |
| COP Tj = +7°C                                       | 5.31            | 3.54               |
| Pdh Tj = 12°C                                       | 1.50 kW         | 2.49 kW            |
| COP Tj = 12°C                                       | 6.79            | 5.35               |
| Pdh Tj = Tbiv                                       | 5.28 kW         | 5.65 kW            |
| COP Tj = Tbiv                                       | 3.08            | 2.22               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.28 kW         | 5.65 kW            |

This information was generated by the HP KEYMARK database on 22 Jun 2022

|   |             |             |
|---|-------------|-------------|
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.08        | 2.22        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 17 W        | 17 W        |
| PTO   | 22 W        | 22 W        |
| PSB   | 17 W        | 17 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.00 kW     |
| Annual energy consumption Qhe                       | 1245 kWh    | 1823 kWh    |

## Colder Climate

| <b>EN 12102-1</b>         |                        |                           |
|---------------------------|------------------------|---------------------------|
|                           | <b>Low temperature</b> | <b>Medium temperature</b> |
| Sound power level indoor  | 29 dB(A)               | 29 dB(A)                  |
| Sound power level outdoor | 47 dB(A)               | 47 dB(A)                  |

| <b>EN 14825</b> |                        |                           |
|-----------------|------------------------|---------------------------|
|                 | <b>Low temperature</b> | <b>Medium temperature</b> |
| $\eta_s$        | 159 %                  | 117 %                     |
| Prated          | 3.90 kW                | 4.00 kW                   |
| SCOP            | 4.04                   | 3.00                      |

This information was generated by the HP KEYMARK database on 22 Jun 2022

|   |             |             |
|---|-------------|-------------|
| Tbiv  | -17 °C      | -16 °C      |
| TOL   | -20 °C      | -18 °C      |
| Pdh Tj = -7°C                                       | 2.46 kW     | 2.32 kW     |
| COP Tj = -7°C                                       | 3.56        | 2.57        |
| Pdh Tj = +2°C                                       | 1.48 kW     | 1.79 kW     |
| COP Tj = +2°C                                       | 4.86        | 3.66        |
| Pdh Tj = +7°C                                       | 1.13 kW     | 2.13 kW     |
| COP Tj = +7°C                                       | 5.53        | 4.54        |
| Pdh Tj = 12°C                                       | 1.21 kW     | 2.55 kW     |
| COP Tj = 12°C                                       | 5.75        | 5.82        |
| Pdh Tj = Tbiv                                       | 3.43 kW     | 3.37 kW     |
| COP Tj = Tbiv                                       | 2.36        | 1.78        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 3.08 kW     | 3.11 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.16        | 1.61        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 17 W        | 17 W        |
| PTO   | 22 W        | 22 W        |
| PSB   | 17 W        | 17 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 3.90 kW     | 4.00 kW     |

This information was generated by the HP KEYMARK database on 22 Jun 2022

|  |          |          |
|--|----------|----------|
| Annual energy consumption $Q_{he}$                                   | 2378 kWh | 3287 kWh |
| $P_{dh} T_j = -15^{\circ}\text{C}$ (if $TOL < -20^{\circ}\text{C}$ ) | 3.27     | 1.88     |
| $COP T_j = -15^{\circ}\text{C}$ (if $TOL < -20^{\circ}\text{C}$ )    | 2.55     | 1.88     |

## Average Climate

| <b>EN 12102-1</b>         |                        |                           |
|---------------------------|------------------------|---------------------------|
|                           | <b>Low temperature</b> | <b>Medium temperature</b> |
| Sound power level indoor  | 29 dB(A)               | 29 dB(A)                  |
| Sound power level outdoor | 47 dB(A)               | 47 dB(A)                  |

| <b>EN 14825</b>                   |                        |                           |
|-----------------------------------|------------------------|---------------------------|
|                                   | <b>Low temperature</b> | <b>Medium temperature</b> |
| $\eta_s$                          | 183 %                  | 131 %                     |
| Prated                            | 4.40 kW                | 4.10 kW                   |
| SCOP                              | 4.65                   | 3.34                      |
| $T_{biv}$                         | -10 °C                 | -10 °C                    |
| TOL                               | -10 °C                 | -10 °C                    |
| $P_{dh} T_j = -7^{\circ}\text{C}$ | 3.88 kW                | 3.57 kW                   |
| $COP T_j = -7^{\circ}\text{C}$    | 3.07                   | 2.16                      |
| $P_{dh} T_j = +2^{\circ}\text{C}$ | 2.51 kW                | 2.34 kW                   |
| $COP T_j = +2^{\circ}\text{C}$    | 4.69                   | 3.29                      |

This information was generated by the HP KEYMARK database on 22 Jun 2022

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = +7°C                                       | 1.50 kW     | 2.13 kW     |
| COP Tj = +7°C                                       | 5.78        | 4.29        |
| Pdh Tj = 12°C                                       | 1.23 kW     | 2.52 kW     |
| COP Tj = 12°C                                       | 6.13        | 5.53        |
| Pdh Tj = Tbiv                                       | 4.37 kW     | 4.05 kW     |
| COP Tj = Tbiv                                       | 2.76        | 1.85        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 4.37 kW     | 4.05 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.76        | 1.85        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1.00        | 1.00        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 17 W        | 17 W        |
| PTO   | 22 W        | 22 W        |
| PSB   | 17 W        | 17 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.00 kW     |
| Annual energy consumption Qhe                       | 1955 kWh    | 2533 kWh    |

## Model: Bosch CS7001iAW 5 ORB-S

| Configure model                     |                                 |
|-------------------------------------|---------------------------------|
| Model name                          | Bosch CS7001iAW 5 ORB-S         |
| Application                         | Heating (medium temp)           |
| Units                               | Indoor + Outdoor                |
| Climate Zone                        | Colder Climate + Warmer Climate |
| Reversibility                       | Yes                             |
| Cooling mode application (optional) | n/a                             |

| General Data |             |
|--------------|-------------|
| Power supply | 1x230V 50Hz |

### Heating

| EN 14511-2  |                 |                    |
|-------------|-----------------|--------------------|
|             | Low temperature | Medium temperature |
| Heat output | 2.14 kW         | 1.88 kW            |
| El input    | 0.46 kW         | 0.72 kW            |
| COP         | 4.68            | 2.60               |

| EN 14511-4                                 |        |
|--|--------|
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure              | passed |
| Defrost test                               | passed |
| Starting and operating test                | passed |

### Warmer Climate



### EN 12102-1

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 29 dB(A)        | 29 dB(A)           |
| Sound power level outdoor | 47 dB(A)        | 47 dB(A)           |

### EN 14825

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_s$  | 224 %           | 161 %              |
| Prated  | 5.30 kW         | 5.60 kW            |
| SCOP  | 5.69            | 4.10               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | 2 °C            | 2 °C               |
| Pdh Tj = +2°C                                       | 5.28 kW         | 5.65 kW            |
| COP Tj = +2°C                                       | 3.08            | 2.22               |
| Pdh Tj = +7°C                                       | 3.22 kW         | 3.92 kW            |
| COP Tj = +7°C                                       | 5.31            | 3.54               |
| Pdh Tj = 12°C                                       | 1.50 kW         | 2.49 kW            |
| COP Tj = 12°C                                       | 6.79            | 5.35               |
| Pdh Tj = Tbiv                                       | 5.28 kW         | 5.65 kW            |
| COP Tj = Tbiv                                       | 3.08            | 2.22               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.28 kW         | 5.65 kW            |

This information was generated by the HP KEYMARK database on 22 Jun 2022

|   |          |          |
|---|----------|----------|
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.08     | 2.22     |
| WTOL  | 60 °C    | 60 °C    |
| Poff  | 17 W     | 17 W     |
| PTO   | 22 W     | 22 W     |
| PSB   | 17 W     | 17 W     |
| PCK   | 0 W      | 0 W      |
| Supplementary Heater: Type of energy input          | n/a      | n/a      |
| Supplementary Heater: PSUP                          | 0.00 kW  | 0.00 kW  |
| Annual energy consumption Qhe                       | 1245 kWh | 1823 kWh |

## Colder Climate

| <b>EN 12102-1</b>         |                        |                           |
|---------------------------|------------------------|---------------------------|
|                           | <b>Low temperature</b> | <b>Medium temperature</b> |
| Sound power level indoor  | 29 dB(A)               | 29 dB(A)                  |
| Sound power level outdoor | 47 dB(A)               | 47 dB(A)                  |

| <b>EN 14825</b> |                        |                           |
|-----------------|------------------------|---------------------------|
|                 | <b>Low temperature</b> | <b>Medium temperature</b> |
| $\eta_s$        | 159 %                  | 117 %                     |
| Prated          | 3.90 kW                | 4.00 kW                   |
| SCOP            | 4.04                   | 3.00                      |

This information was generated by the HP KEYMARK database on 22 Jun 2022

|   |         |         |
|---|---------|---------|
| Tbiv  | -17 °C  | -16 °C  |
| TOL   | -20 °C  | -18 °C  |
| Pdh Tj = -7°C                                       | 2.46 kW | 2.32 kW |
| COP Tj = -7°C                                       | 3.56    | 2.57    |
| Pdh Tj = +2°C                                       | 1.48 kW | 1.79 kW |
| COP Tj = +2°C                                       | 4.86    | 3.66    |
| Pdh Tj = +7°C                                       | 1.13 kW | 2.13 kW |
| COP Tj = +7°C                                       | 5.53    | 4.54    |
| Pdh Tj = 12°C                                       | 1.21 kW | 2.55 kW |
| COP Tj = 12°C                                       | 5.75    | 5.82    |
| Pdh Tj = Tbiv                                       | 3.43 kW | 3.37 kW |
| COP Tj = Tbiv                                       | 2.36    | 1.78    |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 3.08 kW | 3.11 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.16    | 1.61    |
| WTOL  | 60 °C   | 60 °C   |
| Poff  | 17 W    | 17 W    |
| PTO   | 22 W    | 22 W    |
| PSB   | 17 W    | 17 W    |
| PCK   | 0 W     | 0 W     |
| Supplementary Heater: Type of energy input          | n/a     | n/a     |
| Supplementary Heater: PSUP                          | 0.00 kW | 0.00 kW |

This information was generated by the HP KEYMARK database on 22 Jun 2022

|  |          |          |
|--|----------|----------|
| Annual energy consumption $Q_{he}$                                   | 2378 kWh | 3287 kWh |
| $P_{dh} T_j = -15^{\circ}\text{C}$ (if $TOL < -20^{\circ}\text{C}$ ) | 3.27     | 1.88     |
| $COP T_j = -15^{\circ}\text{C}$ (if $TOL < -20^{\circ}\text{C}$ )    | 2.55     | 1.88     |

## Average Climate

| <b>EN 12102-1</b>         |                        |                           |
|---------------------------|------------------------|---------------------------|
|                           | <b>Low temperature</b> | <b>Medium temperature</b> |
| Sound power level indoor  | 29 dB(A)               | 29 dB(A)                  |
| Sound power level outdoor | 47 dB(A)               | 47 dB(A)                  |

| <b>EN 14825</b>                   |                        |                           |
|-----------------------------------|------------------------|---------------------------|
|                                   | <b>Low temperature</b> | <b>Medium temperature</b> |
| $\eta_s$                          | 183 %                  | 131 %                     |
| $P_{rated}$                       | 4.40 kW                | 4.10 kW                   |
| SCOP                              | 4.65                   | 3.34                      |
| $T_{biv}$                         | $-10^{\circ}\text{C}$  | $-10^{\circ}\text{C}$     |
| TOL                               | $-10^{\circ}\text{C}$  | $-10^{\circ}\text{C}$     |
| $P_{dh} T_j = -7^{\circ}\text{C}$ | 3.88 kW                | 3.57 kW                   |
| $COP T_j = -7^{\circ}\text{C}$    | 3.07                   | 2.16                      |
| $C_{dh} T_j = -7^{\circ}\text{C}$ | 1.00                   | 1.00                      |
| $P_{dh} T_j = +2^{\circ}\text{C}$ | 2.51 kW                | 2.34 kW                   |

This information was generated by the HP KEYMARK database on 22 Jun 2022

|   |          |          |
|---|----------|----------|
| COP Tj = +2°C                                       | 4.69     | 3.29     |
| Cdh Tj = +2 °C                                      | 1.00     | 1.00     |
| Pdh Tj = +7°C                                       | 1.50 kW  | 2.13 kW  |
| COP Tj = +7°C                                       | 5.78     | 4.29     |
| Cdh Tj = +7 °C                                      | 1.00     | 1.00     |
| Pdh Tj = 12°C                                       | 1.23 kW  | 2.52 kW  |
| COP Tj = 12°C                                       | 6.13     | 5.53     |
| Cdh Tj = +12 °C                                     | 1.00     | 1.00     |
| Pdh Tj = Tbiv                                       | 4.37 kW  | 4.05 kW  |
| COP Tj = Tbiv                                       | 2.76     | 1.85     |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 4.37 kW  | 4.05 kW  |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.76     | 1.85     |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1.00     | 1.00     |
| WTOL  | 60 °C    | 60 °C    |
| Poff  | 17 W     | 17 W     |
| PTO   | 22 W     | 22 W     |
| PSB   | 17 W     | 17 W     |
| PCK   | 0 W      | 0 W      |
| Supplementary Heater: Type of energy input          | n/a      | n/a      |
| Supplementary Heater: PSUP                          | 0.00 kW  | 0.00 kW  |
| Annual energy consumption Qhe                       | 1955 kWh | 2533 kWh |

## Model: Bosch CS7001iAW 5 ORM-S

| Configure model                     |                                 |
|-------------------------------------|---------------------------------|
| Model name                          | Bosch CS7001iAW 5 ORM-S         |
| Application                         | Heating + DHW + low temp        |
| Units                               | Indoor + Outdoor                |
| Climate Zone                        | Colder Climate + Warmer Climate |
| Reversibility                       | Yes                             |
| Cooling mode application (optional) | n/a                             |

| General Data |             |
|--------------|-------------|
| Power supply | 3x400V 50Hz |

### Heating

| EN 14511-2  |                 |                    |
|-------------|-----------------|--------------------|
|             | Low temperature | Medium temperature |
| Heat output | 2.14 kW         | 1.88 kW            |
| El input    | 0.46 kW         | 0.72 kW            |
| COP         | 4.68            | 2.60               |

| EN 14511-4                                 |        |
|--|--------|
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure              | passed |
| Defrost test                               | passed |
| Starting and operating test                | passed |

### Warmer Climate

### EN 12102-1

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 25 dB(A)        | 25 dB(A)           |
| Sound power level outdoor | 47 dB(A)        | 47 dB(A)           |

### EN 14825

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_s$  | 224 %           | 161 %              |
| Prated  | 5.30 kW         | 5.60 kW            |
| SCOP  | 5.69            | 4.10               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | 2 °C            | 2 °C               |
| Pdh Tj = +2°C                                       | 5.28 kW         | 5.65 kW            |
| COP Tj = +2°C                                       | 3.08            | 2.22               |
| Pdh Tj = +7°C                                       | 3.22 kW         | 3.92 kW            |
| COP Tj = +7°C                                       | 5.31            | 3.54               |
| Pdh Tj = 12°C                                       | 1.50 kW         | 2.49 kW            |
| COP Tj = 12°C                                       | 6.79            | 5.35               |
| Pdh Tj = Tbiv                                       | 5.28 kW         | 5.65 kW            |
| COP Tj = Tbiv                                       | 3.08            | 2.22               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.28 kW         | 5.65 kW            |

This information was generated by the HP KEYMARK database on 22 Jun 2022

|   |             |             |
|---|-------------|-------------|
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.08        | 2.22        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 17 W        | 17 W        |
| PTO   | 22 W        | 22 W        |
| PSB   | 17 W        | 17 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.00 kW     |
| Annual energy consumption Qhe                       | 1245 kWh    | 1823 kWh    |

## Colder Climate

| <b>EN 12102-1</b>         |                        |                           |
|---------------------------|------------------------|---------------------------|
|                           | <b>Low temperature</b> | <b>Medium temperature</b> |
| Sound power level indoor  | 25 dB(A)               | 25 dB(A)                  |
| Sound power level outdoor | 47 dB(A)               | 47 dB(A)                  |

| <b>EN 14825</b> |                        |                           |
|-----------------|------------------------|---------------------------|
|                 | <b>Low temperature</b> | <b>Medium temperature</b> |
| $\eta_s$        | 159 %                  | 117 %                     |
| Prated          | 3.90 kW                | 4.00 kW                   |
| SCOP            | 4.04                   | 3.00                      |



This information was generated by the HP KEYMARK database on 22 Jun 2022

|   |             |             |
|---|-------------|-------------|
| Tbiv  | -17 °C      | -16 °C      |
| TOL   | -20 °C      | -18 °C      |
| Pdh Tj = -7°C                                       | 2.46 kW     | 2.32 kW     |
| COP Tj = -7°C                                       | 3.56        | 2.57        |
| Pdh Tj = +2°C                                       | 1.48 kW     | 1.79 kW     |
| COP Tj = +2°C                                       | 4.86        | 3.66        |
| Pdh Tj = +7°C                                       | 1.13 kW     | 2.13 kW     |
| COP Tj = +7°C                                       | 5.53        | 4.54        |
| Pdh Tj = 12°C                                       | 1.21 kW     | 2.55 kW     |
| COP Tj = 12°C                                       | 5.75        | 5.82        |
| Pdh Tj = Tbiv                                       | 3.43 kW     | 3.37 kW     |
| COP Tj = Tbiv                                       | 2.36        | 1.78        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 3.08 kW     | 3.11 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.16        | 1.61        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 17 W        | 17 W        |
| PTO   | 22 W        | 22 W        |
| PSB   | 17 W        | 17 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 3.90 kW     | 4.00 kW     |

This information was generated by the HP KEYMARK database on 22 Jun 2022

|  |          |          |
|--|----------|----------|
| Annual energy consumption $Q_{he}$                                   | 2378 kWh | 3287 kWh |
| $P_{dh} T_j = -15^{\circ}\text{C}$ (if $TOL < -20^{\circ}\text{C}$ ) | 3.27     | 1.88     |
| $COP T_j = -15^{\circ}\text{C}$ (if $TOL < -20^{\circ}\text{C}$ )    | 2.55     | 1.88     |

## Average Climate

| <b>EN 12102-1</b>         |                        |                           |
|---------------------------|------------------------|---------------------------|
|                           | <b>Low temperature</b> | <b>Medium temperature</b> |
| Sound power level indoor  | 25 dB(A)               | 25 dB(A)                  |
| Sound power level outdoor | 47 dB(A)               | 47 dB(A)                  |

| <b>EN 14825</b>                   |                        |                           |
|-----------------------------------|------------------------|---------------------------|
|                                   | <b>Low temperature</b> | <b>Medium temperature</b> |
| $\eta_s$                          | 183 %                  | 131 %                     |
| $P_{rated}$                       | 4.40 kW                | 4.10 kW                   |
| SCOP                              | 4.65                   | 3.34                      |
| $T_{biv}$                         | $-10^{\circ}\text{C}$  | $-10^{\circ}\text{C}$     |
| TOL                               | $-10^{\circ}\text{C}$  | $-10^{\circ}\text{C}$     |
| $P_{dh} T_j = -7^{\circ}\text{C}$ | 3.88 kW                | 3.57 kW                   |
| $COP T_j = -7^{\circ}\text{C}$    | 3.07                   | 2.16                      |
| $P_{dh} T_j = +2^{\circ}\text{C}$ | 2.51 kW                | 2.34 kW                   |
| $COP T_j = +2^{\circ}\text{C}$    | 4.69                   | 3.29                      |

This information was generated by the HP KEYMARK database on 22 Jun 2022

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = +7°C                                       | 1.50 kW     | 2.13 kW     |
| COP Tj = +7°C                                       | 5.78        | 4.29        |
| Pdh Tj = 12°C                                       | 1.23 kW     | 2.52 kW     |
| COP Tj = 12°C                                       | 6.13        | 5.53        |
| Pdh Tj = Tbiv                                       | 4.37 kW     | 4.05 kW     |
| COP Tj = Tbiv                                       | 2.76        | 1.85        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 4.37 kW     | 4.05 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.76        | 1.85        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1.00        | 1.00        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 17 W        | 17 W        |
| PTO   | 22 W        | 22 W        |
| PSB   | 17 W        | 17 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.00 kW     |
| Annual energy consumption Qhe                       | 1955 kWh    | 2533 kWh    |

## Domestic Hot Water (DHW)

### Warmer Climate

| <b>EN 16147</b>                 |             |
|---------------------------------|-------------|
| Declared load profile           | L           |
| Efficiency $\eta_{DHW}$         | 119 %       |
| COP                             | 2.80        |
| Heating up time                 | 03:00 h:min |
| Standby power input             | 47.0 W      |
| Reference hot water temperature | 54.2 °C     |
| Mixed water at 40°C             | 272 l       |

## Colder Climate

| <b>EN 16147</b>                 |             |
|---------------------------------|-------------|
| Declared load profile           | L           |
| Efficiency $\eta_{DHW}$         | 81 %        |
| COP                             | 1.90        |
| Heating up time                 | 04:18 h:min |
| Standby power input             | 65.0 W      |
| Reference hot water temperature | 52.4 °C     |
| Mixed water at 40°C             | 275 l       |

## Average Climate

| <b>EN 16147</b>                 |             |
|---------------------------------|-------------|
| Declared load profile           | L           |
| Efficiency $\eta_{DHW}$         | 96 %        |
| COP                             | 2.25        |
| Heating up time                 | 03:30 h:min |
| Standby power input             | 55.0 W      |
| Reference hot water temperature | 52.1 °C     |
| Mixed water at 40°C             | 272 l       |

## Model: Bosch CS7001iAW 5 ORMS-S

| Configure model                     |                                 |
|-------------------------------------|---------------------------------|
| Model name                          | Bosch CS7001iAW 5 ORMS-S        |
| Application                         | Heating + DHW + low temp        |
| Units                               | Indoor + Outdoor                |
| Climate Zone                        | Colder Climate + Warmer Climate |
| Reversibility                       | Yes                             |
| Cooling mode application (optional) | n/a                             |

| General Data |             |
|--------------|-------------|
| Power supply | 3x400V 50Hz |

### Heating

| EN 14511-2  |                 |                    |
|-------------|-----------------|--------------------|
|             | Low temperature | Medium temperature |
| Heat output | 2.14 kW         | 1.88 kW            |
| El input    | 0.46 kW         | 0.72 kW            |
| COP         | 4.68            | 2.60               |

| EN 14511-4                                 |        |
|--|--------|
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure              | passed |
| Defrost test                               | passed |
| Starting and operating test                | passed |

### Warmer Climate

### EN 12102-1

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 25 dB(A)        | 25 dB(A)           |
| Sound power level outdoor | 47 dB(A)        | 47 dB(A)           |

### EN 14825

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_s$  | 224 %           | 161 %              |
| Prated  | 5.30 kW         | 5.60 kW            |
| SCOP  | 5.69            | 4.10               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | 2 °C            | 2 °C               |
| Pdh Tj = +2°C                                       | 5.28 kW         | 5.65 kW            |
| COP Tj = +2°C                                       | 3.08            | 2.22               |
| Pdh Tj = +7°C                                       | 3.22 kW         | 3.92 kW            |
| COP Tj = +7°C                                       | 5.31            | 3.54               |
| Pdh Tj = 12°C                                       | 1.50 kW         | 2.49 kW            |
| COP Tj = 12°C                                       | 6.79            | 5.35               |
| Pdh Tj = Tbiv                                       | 5.28 kW         | 5.65 kW            |
| COP Tj = Tbiv                                       | 3.08            | 2.22               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.28 kW         | 5.65 kW            |

This information was generated by the HP KEYMARK database on 22 Jun 2022

|   |             |             |
|---|-------------|-------------|
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.08        | 2.22        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 17 W        | 17 W        |
| PTO   | 22 W        | 22 W        |
| PSB   | 17 W        | 17 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.00 kW     |
| Annual energy consumption Qhe                       | 1245 kWh    | 1823 kWh    |

## Colder Climate

| <b>EN 12102-1</b>         |                        |                           |
|---------------------------|------------------------|---------------------------|
|                           | <b>Low temperature</b> | <b>Medium temperature</b> |
| Sound power level indoor  | 25 dB(A)               | 25 dB(A)                  |
| Sound power level outdoor | 47 dB(A)               | 47 dB(A)                  |

| <b>EN 14825</b> |                        |                           |
|-----------------|------------------------|---------------------------|
|                 | <b>Low temperature</b> | <b>Medium temperature</b> |
| $\eta_s$        | 159 %                  | 117 %                     |
| Prated          | 3.90 kW                | 4.00 kW                   |
| SCOP            | 4.04                   | 3.00                      |



This information was generated by the HP KEYMARK database on 22 Jun 2022

|   |             |             |
|---|-------------|-------------|
| Tbiv  | -17 °C      | -16 °C      |
| TOL   | -20 °C      | -18 °C      |
| Pdh Tj = -7°C                                       | 2.46 kW     | 2.32 kW     |
| COP Tj = -7°C                                       | 3.56        | 2.57        |
| Pdh Tj = +2°C                                       | 1.48 kW     | 1.79 kW     |
| COP Tj = +2°C                                       | 4.86        | 3.66        |
| Pdh Tj = +7°C                                       | 1.13 kW     | 2.13 kW     |
| COP Tj = +7°C                                       | 5.53        | 4.54        |
| Pdh Tj = 12°C                                       | 1.21 kW     | 2.55 kW     |
| COP Tj = 12°C                                       | 5.75        | 5.82        |
| Pdh Tj = Tbiv                                       | 3.43 kW     | 3.37 kW     |
| COP Tj = Tbiv                                       | 2.36        | 1.78        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 3.08 kW     | 3.11 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.16        | 1.61        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 17 W        | 17 W        |
| PTO   | 22 W        | 22 W        |
| PSB   | 17 W        | 17 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 3.90 kW     | 4.00 kW     |

This information was generated by the HP KEYMARK database on 22 Jun 2022

|  |          |          |
|--|----------|----------|
| Annual energy consumption $Q_{he}$                                   | 2378 kWh | 3287 kWh |
| $P_{dh} T_j = -15^{\circ}\text{C}$ (if $TOL < -20^{\circ}\text{C}$ ) | 3.27     | 1.88     |
| $COP T_j = -15^{\circ}\text{C}$ (if $TOL < -20^{\circ}\text{C}$ )    | 2.55     | 1.88     |

## Average Climate

| <b>EN 12102-1</b>         |                        |                           |
|---------------------------|------------------------|---------------------------|
|                           | <b>Low temperature</b> | <b>Medium temperature</b> |
| Sound power level indoor  | 25 dB(A)               | 25 dB(A)                  |
| Sound power level outdoor | 47 dB(A)               | 47 dB(A)                  |

| <b>EN 14825</b>                   |                        |                           |
|-----------------------------------|------------------------|---------------------------|
|                                   | <b>Low temperature</b> | <b>Medium temperature</b> |
| $\eta_s$                          | 183 %                  | 131 %                     |
| Prated                            | 4.40 kW                | 4.10 kW                   |
| SCOP                              | 4.65                   | 3.34                      |
| $T_{biv}$                         | -10 °C                 | -10 °C                    |
| TOL                               | -10 °C                 | -10 °C                    |
| $P_{dh} T_j = -7^{\circ}\text{C}$ | 3.88 kW                | 3.57 kW                   |
| $COP T_j = -7^{\circ}\text{C}$    | 3.07                   | 2.16                      |
| $P_{dh} T_j = +2^{\circ}\text{C}$ | 2.51 kW                | 2.34 kW                   |
| $COP T_j = +2^{\circ}\text{C}$    | 4.69                   | 3.29                      |

This information was generated by the HP KEYMARK database on 22 Jun 2022

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = +7°C                                       | 1.50 kW     | 2.13 kW     |
| COP Tj = +7°C                                       | 5.78        | 4.29        |
| Pdh Tj = 12°C                                       | 1.23 kW     | 2.52 kW     |
| COP Tj = 12°C                                       | 6.13        | 5.53        |
| Pdh Tj = Tbiv                                       | 4.37 kW     | 4.05 kW     |
| COP Tj = Tbiv                                       | 2.76        | 1.85        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 4.37 kW     | 4.05 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.76        | 1.85        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 1.00        | 1.00        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 17 W        | 17 W        |
| PTO   | 22 W        | 22 W        |
| PSB   | 17 W        | 17 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.00 kW     |
| Annual energy consumption Qhe                       | 1955 kWh    | 2533 kWh    |

## Domestic Hot Water (DHW)

### Warmer Climate

| <b>EN 16147</b>                 |             |
|---------------------------------|-------------|
| Declared load profile           | L           |
| Efficiency $\eta_{DHW}$         | 119 %       |
| COP                             | 2.80        |
| Heating up time                 | 03:00 h:min |
| Standby power input             | 47.0 W      |
| Reference hot water temperature | 54.2 °C     |
| Mixed water at 40°C             | 272 l       |

## Colder Climate

| <b>EN 16147</b>                 |             |
|---------------------------------|-------------|
| Declared load profile           | L           |
| Efficiency $\eta_{DHW}$         | 81 %        |
| COP                             | 1.90        |
| Heating up time                 | 04:18 h:min |
| Standby power input             | 65.0 W      |
| Reference hot water temperature | 52.4 °C     |
| Mixed water at 40°C             | 275 l       |

## Average Climate

| <b>EN 16147</b>                 |             |
|---------------------------------|-------------|
| Declared load profile           | L           |
| Efficiency $\eta_{DHW}$         | 96 %        |
| COP                             | 2.25        |
| Heating up time                 | 03:30 h:min |
| Standby power input             | 55.0 W      |
| Reference hot water temperature | 52.1 °C     |
| Mixed water at 40°C             | 272 l       |

## Model: Bosch CSH7000iAW 5 OR

| Configure model                     |                                 |
|-------------------------------------|---------------------------------|
| Model name                          | Bosch CSH7000iAW 5 OR           |
| Application                         | Heating (medium temp)           |
| Units                               | Indoor + Outdoor                |
| Climate Zone                        | Colder Climate + Warmer Climate |
| Reversibility                       | Yes                             |
| Cooling mode application (optional) | n/a                             |

| General Data |             |
|--------------|-------------|
| Power supply | 1x230V 50Hz |

### Heating

| EN 14511-2  |                 |                    |
|-------------|-----------------|--------------------|
|             | Low temperature | Medium temperature |
| Heat output | 2.14 kW         | 1.88 kW            |
| El input    | 0.46 kW         | 0.72 kW            |
| COP         | 4.68            | 2.60               |

| EN 14511-4                                 |        |
|--|--------|
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure              | passed |
| Defrost test                               | passed |
| Starting and operating test                | passed |

### Warmer Climate

### EN 12102-1

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 29 dB(A)        | 29 dB(A)           |
| Sound power level outdoor | 47 dB(A)        | 47 dB(A)           |

### EN 14825

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_s$  | 224 %           | 161 %              |
| Prated  | 5.30 kW         | 5.60 kW            |
| SCOP  | 5.69            | 4.10               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | 2 °C            | 2 °C               |
| Pdh Tj = +2°C                                       | 5.28 kW         | 5.65 kW            |
| COP Tj = +2°C                                       | 3.08            | 2.22               |
| Pdh Tj = +7°C                                       | 3.22 kW         | 3.92 kW            |
| COP Tj = +7°C                                       | 5.31            | 3.54               |
| Pdh Tj = 12°C                                       | 1.50 kW         | 2.49 kW            |
| COP Tj = 12°C                                       | 6.79            | 5.35               |
| Pdh Tj = Tbiv                                       | 5.28 kW         | 5.65 kW            |
| COP Tj = Tbiv                                       | 3.08            | 2.22               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.28 kW         | 5.65 kW            |

This information was generated by the HP KEYMARK database on 22 Jun 2022

|   |          |          |
|---|----------|----------|
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.08     | 2.22     |
| WTOL  | 60 °C    | 60 °C    |
| Poff  | 17 W     | 17 W     |
| PTO   | 22 W     | 22 W     |
| PSB   | 17 W     | 17 W     |
| PCK   | 0 W      | 0 W      |
| Supplementary Heater: Type of energy input          | n/a      | n/a      |
| Supplementary Heater: PSUP                          | 0.00 kW  | 0.00 kW  |
| Annual energy consumption Qhe                       | 1245 kWh | 1823 kWh |

## Colder Climate

| <b>EN 12102-1</b>         |                        |                           |
|---------------------------|------------------------|---------------------------|
|                           | <b>Low temperature</b> | <b>Medium temperature</b> |
| Sound power level indoor  | 29 dB(A)               | 29 dB(A)                  |
| Sound power level outdoor | 47 dB(A)               | 47 dB(A)                  |

| <b>EN 14825</b> |                        |                           |
|-----------------|------------------------|---------------------------|
|                 | <b>Low temperature</b> | <b>Medium temperature</b> |
| $\eta_s$        | 159 %                  | 117 %                     |
| Prated          | 3.90 kW                | 4.00 kW                   |
| SCOP            | 4.04                   | 3.00                      |



This information was generated by the HP KEYMARK database on 22 Jun 2022

|   |         |         |
|---|---------|---------|
| Tbiv  | -17 °C  | -16 °C  |
| TOL   | -20 °C  | -18 °C  |
| Pdh Tj = -7°C                                       | 2.46 kW | 2.32 kW |
| COP Tj = -7°C                                       | 3.56    | 2.57    |
| Pdh Tj = +2°C                                       | 1.48 kW | 1.79 kW |
| COP Tj = +2°C                                       | 4.86    | 3.66    |
| Pdh Tj = +7°C                                       | 1.13 kW | 2.13 kW |
| COP Tj = +7°C                                       | 5.53    | 4.54    |
| Pdh Tj = 12°C                                       | 1.21 kW | 2.55 kW |
| COP Tj = 12°C                                       | 5.75    | 5.82    |
| Pdh Tj = Tbiv                                       | 3.43 kW | 3.37 kW |
| COP Tj = Tbiv                                       | 2.36    | 1.78    |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 3.08 kW | 3.11 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.16    | 1.61    |
| WTOL  | 60 °C   | 60 °C   |
| Poff  | 17 W    | 17 W    |
| PTO   | 22 W    | 22 W    |
| PSB   | 17 W    | 17 W    |
| PCK   | 0 W     | 0 W     |
| Supplementary Heater: Type of energy input          | n/a     | n/a     |
| Supplementary Heater: PSUP                          | 0.00 kW | 0.00 kW |

This information was generated by the HP KEYMARK database on 22 Jun 2022

|  |          |          |
|--|----------|----------|
| Annual energy consumption $Q_{he}$                                   | 2378 kWh | 3287 kWh |
| $P_{dh} T_j = -15^{\circ}\text{C}$ (if $TOL < -20^{\circ}\text{C}$ ) | 3.27     | 1.88     |
| $COP T_j = -15^{\circ}\text{C}$ (if $TOL < -20^{\circ}\text{C}$ )    | 2.55     | 1.88     |

## Average Climate

| <b>EN 12102-1</b>         |                        |                           |
|---------------------------|------------------------|---------------------------|
|                           | <b>Low temperature</b> | <b>Medium temperature</b> |
| Sound power level indoor  | 29 dB(A)               | 29 dB(A)                  |
| Sound power level outdoor | 47 dB(A)               | 47 dB(A)                  |

| <b>EN 14825</b>                   |                        |                           |
|-----------------------------------|------------------------|---------------------------|
|                                   | <b>Low temperature</b> | <b>Medium temperature</b> |
| $\eta_s$                          | 183 %                  | 131 %                     |
| $P_{rated}$                       | 4.40 kW                | 4.10 kW                   |
| SCOP                              | 4.65                   | 3.34                      |
| $T_{biv}$                         | -10 °C                 | -10 °C                    |
| TOL                               | -10 °C                 | -10 °C                    |
| $P_{dh} T_j = -7^{\circ}\text{C}$ | 3.88 kW                | 3.57 kW                   |
| $COP T_j = -7^{\circ}\text{C}$    | 3.07                   | 2.16                      |
| $P_{dh} T_j = +2^{\circ}\text{C}$ | 2.51 kW                | 2.34 kW                   |
| $COP T_j = +2^{\circ}\text{C}$    | 4.69                   | 3.29                      |

This information was generated by the HP KEYMARK database on 22 Jun 2022

|   |          |          |
|---|----------|----------|
| Pdh Tj = +7°C                                       | 1.50 kW  | 2.13 kW  |
| COP Tj = +7°C                                       | 5.78     | 4.29     |
| Pdh Tj = 12°C                                       | 1.23 kW  | 2.52 kW  |
| COP Tj = 12°C                                       | 6.13     | 5.53     |
| Pdh Tj = Tbiv                                       | 4.37 kW  | 4.05 kW  |
| COP Tj = Tbiv                                       | 2.76     | 1.85     |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 4.37 kW  | 4.05 kW  |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.76     | 1.85     |
| WTOL  | 60 °C    | 60 °C    |
| Poff  | 17 W     | 17 W     |
| PTO   | 22 W     | 22 W     |
| PSB   | 17 W     | 17 W     |
| PCK   | 0 W      | 0 W      |
| Supplementary Heater: Type of energy input          | n/a      | n/a      |
| Supplementary Heater: PSUP                          | 0.00 kW  | 0.00 kW  |
| Annual energy consumption Qhe                       | 1955 kWh | 2533 kWh |

## Model: Bosch CS7001iAW 5 ORMB-S

### Configure model

|                                     |                                 |
|-------------------------------------|---------------------------------|
| Model name                          | Bosch CS7001iAW 5 ORMB-S        |
| Application                         | Heating (medium temp)           |
| Units                               | Indoor + Outdoor                |
| Climate Zone                        | Colder Climate + Warmer Climate |
| Reversibility                       | Yes                             |
| Cooling mode application (optional) | n/a                             |

### General Data

|              |             |
|--------------|-------------|
| Power supply | 3x400V 50Hz |
|--------------|-------------|

## Heating

### EN 14511-2

|             | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 2.14 kW         | 1.88 kW            |
| El input    | 0.48 kW         | 0.75 kW            |
| COP         | 4.44            | 2.52               |

### EN 14511-4

| Shutting off the heat transfer medium flow | passed |
|--|--------|
| Complete power supply failure              | passed |
| Defrost test                               | passed |
| Starting and operating test                | passed |

## Warmer Climate

### EN 12102-1

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 49 dB(A)        | 49 dB(A)           |
| Sound power level outdoor | 47 dB(A)        | 47 dB(A)           |

### EN 14825

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_s$  | 208 %           | 153 %              |
| Prated  | 5.30 kW         | 5.60 kW            |
| SCOP  | 5.28            | 3.90               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | 2 °C            | 2 °C               |
| Pdh Tj = +2°C                                       | 5.28 kW         | 5.65 kW            |
| COP Tj = +2°C                                       | 2.98            | 2.19               |
| Pdh Tj = +7°C                                       | 3.22 kW         | 3.92 kW            |
| COP Tj = +7°C                                       | 5.01            | 3.45               |
| Pdh Tj = 12°C                                       | 1.50 kW         | 2.49 kW            |
| COP Tj = 12°C                                       | 6.19            | 5.05               |
| Pdh Tj = Tbiv                                       | 5.28 kW         | 5.65 kW            |
| COP Tj = Tbiv                                       | 2.98            | 2.19               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.28 kW         | 5.65 kW            |

This information was generated by the HP KEYMARK database on 22 Jun 2022

|   |             |             |
|---|-------------|-------------|
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.98        | 2.19        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 22 W        | 22 W        |
| PTO   | 22 W        | 22 W        |
| PSB   | 22 W        | 22 W        |
| PCK   | 4 W         | 4 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.00 kW     |
| Annual energy consumption Qhe                       | 1341 kWh    | 1918 kWh    |

## Colder Climate

| <b>EN 12102-1</b>         |                        |                           |
|---------------------------|------------------------|---------------------------|
|                           | <b>Low temperature</b> | <b>Medium temperature</b> |
| Sound power level indoor  | 49 dB(A)               | 49 dB(A)                  |
| Sound power level outdoor | 47 dB(A)               | 47 dB(A)                  |

| <b>EN 14825</b> |                        |                           |
|-----------------|------------------------|---------------------------|
|                 | <b>Low temperature</b> | <b>Medium temperature</b> |
| $\eta_s$        | 150 %                  | 112 %                     |
| Prated          | 3.90 kW                | 4.00 kW                   |
| SCOP            | 3.83                   | 2.87                      |

This information was generated by the HP KEYMARK database on 22 Jun 2022

|   |             |             |
|---|-------------|-------------|
| Tbiv  | -17 °C      | -16 °C      |
| TOL   | -20 °C      | -18 °C      |
| Pdh Tj = -7°C                                       | 2.46 kW     | 2.32 kW     |
| COP Tj = -7°C                                       | 3.43        | 2.52        |
| Pdh Tj = +2°C                                       | 1.48 kW     | 1.79 kW     |
| COP Tj = +2°C                                       | 4.59        | 3.51        |
| Pdh Tj = +7°C                                       | 1.13 kW     | 2.13 kW     |
| COP Tj = +7°C                                       | 5.13        | 4.33        |
| Pdh Tj = 12°C                                       | 1.21 kW     | 2.55 kW     |
| COP Tj = 12°C                                       | 5.24        | 5.51        |
| Pdh Tj = Tbiv                                       | 3.43 kW     | 3.37 kW     |
| COP Tj = Tbiv                                       | 2.31        | 1.76        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 3.08 kW     | 3.11 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.12        | 1.59        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 22 W        | 22 W        |
| PTO   | 22 W        | 22 W        |
| PSB   | 22 W        | 22 W        |
| PCK   | 4 W         | 4 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 3.90 kW     | 4.00 kW     |

This information was generated by the HP KEYMARK database on 22 Jun 2022

|  |          |          |
|--|----------|----------|
| Annual energy consumption $Q_{he}$                                   | 2511 kWh | 3430 kWh |
| $P_{dh} T_j = -15^{\circ}\text{C}$ (if $TOL < -20^{\circ}\text{C}$ ) | 3.27     | 3.29     |
| $COP T_j = -15^{\circ}\text{C}$ (if $TOL < -20^{\circ}\text{C}$ )    | 2.49     | 1.85     |

## Average Climate

| <b>EN 12102-1</b>         |                        |                           |
|---------------------------|------------------------|---------------------------|
|                           | <b>Low temperature</b> | <b>Medium temperature</b> |
| Sound power level indoor  | 49 dB(A)               | 49 dB(A)                  |
| Sound power level outdoor | 47 dB(A)               | 47 dB(A)                  |

| <b>EN 14825</b>                   |                        |                           |
|-----------------------------------|------------------------|---------------------------|
|                                   | <b>Low temperature</b> | <b>Medium temperature</b> |
| $\eta_s$                          | 172 %                  | 125 %                     |
| $P_{rated}$                       | 4.40 kW                | 4.10 kW                   |
| SCOP                              | 4.39                   | 3.20                      |
| $T_{biv}$                         | -10 °C                 | -10 °C                    |
| TOL                               | -10 °C                 | -10 °C                    |
| $P_{dh} T_j = -7^{\circ}\text{C}$ | 3.88 kW                | 3.57 kW                   |
| $COP T_j = -7^{\circ}\text{C}$    | 2.99                   | 2.13                      |
| $P_{dh} T_j = +2^{\circ}\text{C}$ | 2.51 kW                | 2.34 kW                   |
| $COP T_j = +2^{\circ}\text{C}$    | 4.50                   | 3.20                      |



This information was generated by the HP KEYMARK database on 22 Jun 2022

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = +7°C                                       | 1.50 kW     | 2.13 kW     |
| COP Tj = +7°C                                       | 5.32        | 4.08        |
| Pdh Tj = 12°C                                       | 1.23 kW     | 2.52 kW     |
| COP Tj = 12°C                                       | 5.57        | 5.22        |
| Pdh Tj = Tbiv                                       | 4.37 kW     | 4.05 kW     |
| COP Tj = Tbiv                                       | 2.70        | 1.83        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 4.37 kW     | 4.05 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.70        | 1.83        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 22 W        | 22 W        |
| PTO   | 22 W        | 22 W        |
| PSB   | 22 W        | 22 W        |
| PCK   | 4 W         | 4 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.00 kW     |
| Annual energy consumption Qhe                       | 2072 kWh    | 2647 kWh    |