

Subtype Vitocal 2xx-S ODU3

|                     |   |
|---------------------|---|
| Certificate Holder  | Viessmann Climate Solutions GmbH & Co. KG             |
| Address             | Viessmannstr. 1                                       |
| ZIP                 | 35107   |
| City                | Allendorf/Eder  |
| Country             | DE  |
| Certification Body  | DIN CERTCO Gesellschaft für Konformitätsbewertung mbH |
| Subtype title       | Vitocal 2xx-S ODU3                                    |
| Registration number | 011-1W0201  |
| Heat Pump Type      | Outdoor Air/Water                                     |
| Refrigerant         | R410A   |
| Mass of Refrigerant | 3.6 kg  |
| Certification Date  | 15.03.2018  |

**Model Vitocal 200-S AWB-M-E-AC 201.D10**

|                                     |                                  |
|-------------------------------------|----------------------------------|
| Model name                          | Vitocal 200-S AWB-M-E-AC 201.D10 |
| Application                         | Heating (medium temp)            |
| Units                               | Indoor, Outdoor                  |
| Climate zone (for heating)          | n/a                              |
| Cooling mode application (optional) | n/a                              |
| Any additional heat sources         | n/a                              |

**General data**

|                  |             |
|------------------|-------------|
| Power supply     | 1x230V 50Hz |
| Off-peak product | Yes         |

**Outdoor Air/Water****EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

|                               |        |
|-------------------------------|--------|
| Complete power supply failure | passed |
| Defrost test                  | passed |

**EN 14511-2 | Heating**

|             | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 7.01 kW         | 7.93 kW            |
| El input    | 1.49 kW         | 2.73 kW            |
| COP         | 4.69            | 2.90               |

**EN 12102-1 | Average Climate**

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 39 dB(A)        | 39 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

**EN 14825 | Average Climate**

|               | Low temperature | Medium temperature |
|---------------|-----------------|--------------------|
| $\eta_s$      | 176 %           | 129 %              |
| Prated        | 9.32 kW         | 9.35 kW            |
| SCOP          | 4.47            | 3.29               |
| Tbiv          | -7 °C           | -7 °C              |
| TOL           | -20 °C          | -20 °C             |
| Pdh Tj = -7°C | 8.25 kW         | 8.27 kW            |
| COP Tj = -7°C | 3.24            | 2.26               |
| Pdh Tj = +2°C | 5.32 kW         | 6.07 kW            |
| COP Tj = +2°C | 4.32            | 3.15               |
| Pdh Tj = +7°C | 6.60 kW         | 5.37 kW            |
| COP Tj = +7°C | 5.81            | 4.21               |
| Pdh Tj = 12°C | 6.63 kW         | 6.41 kW            |
| COP Tj = 12°C | 7.51            | 5.70               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 8.25 kW     | 8.27 kW     |
| COP Tj = Tbiv                                       | 3.24        | 2.26        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.51 kW     | 8.04 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.90        | 2.04        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.98        | 0.99        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 50 W        | 50 W        |
| PTO   | 0 W         | 0 W         |
| PSB   | 25 W        | 25 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 1.86 kW     | 1.36 kW     |
| Annual energy consumption Qhe                       | 4314 kWh    | 5689 kWh    |

**Model Vitocal 200-S AWB-M-E-AC 201.D13**

|                                     |                                  |
|-------------------------------------|----------------------------------|
| Model name                          | Vitocal 200-S AWB-M-E-AC 201.D13 |
| Application                         | Heating (medium temp)            |
| Units                               | Indoor, Outdoor                  |
| Climate zone (for heating)          | n/a                              |
| Cooling mode application (optional) | n/a                              |
| Any additional heat sources         | n/a                              |

**General data**

|                  |             |
|------------------|-------------|
| Power supply     | 1x230V 50Hz |
| Off-peak product | Yes         |

**Outdoor Air/Water****EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

|                               |        |
|-------------------------------|--------|
| Complete power supply failure | passed |
| Defrost test                  | passed |

**EN 14511-2 | Heating**

|             | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 7.85 kW         | 7.93 kW            |
| El input    | 1.66 kW         | 2.73 kW            |
| COP         | 4.72            | 2.90               |

**EN 12102-1 | Average Climate**

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 39 dB(A)        | 39 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

**EN 14825 | Average Climate**

|               | Low temperature | Medium temperature |
|---------------|-----------------|--------------------|
| $\eta_s$      | 175 %           | 130 %              |
| Prated        | 9.99 kW         | 10.07 kW           |
| SCOP          | 4.46            | 3.32               |
| Tbiv          | -7 °C           | -7 °C              |
| TOL           | -20 °C          | -20 °C             |
| Pdh Tj = -7°C | 8.83 kW         | 8.91 kW            |
| COP Tj = -7°C | 3.19            | 2.27               |
| Pdh Tj = +2°C | 5.71 kW         | 5.90 kW            |
| COP Tj = +2°C | 4.30            | 3.17               |
| Pdh Tj = +7°C | 8.86 kW         | 5.38 kW            |
| COP Tj = +7°C | 5.63            | 4.24               |
| Pdh Tj = 12°C | 6.65 kW         | 6.42 kW            |
| COP Tj = 12°C | 7.64            | 5.72               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 8.83 kW     | 8.91 kW     |
| COP Tj = Tbiv                                       | 3.19        | 2.27        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 8.06 kW     | 8.59 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.86        | 2.04        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.98        | 0.99        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 50 W        | 50 W        |
| PTO   | 0 W         | 0 W         |
| PSB   | 25 W        | 25 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 1.98 kW     | 1.54 kW     |
| Annual energy consumption Qhe                       | 4625 kWh    | 6275 kWh    |

**Model Vitocal 200-S AWB-M-E-AC 201.D16**

|                                     |                                  |
|-------------------------------------|----------------------------------|
| Model name                          | Vitocal 200-S AWB-M-E-AC 201.D16 |
| Application                         | Heating (medium temp)            |
| Units                               | Indoor, Outdoor                  |
| Climate zone (for heating)          | n/a                              |
| Cooling mode application (optional) | n/a                              |
| Any additional heat sources         | n/a                              |

**General data**

|                  |             |
|------------------|-------------|
| Power supply     | 1x230V 50Hz |
| Off-peak product | Yes         |

**Outdoor Air/Water****EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

|                               |        |
|-------------------------------|--------|
| Complete power supply failure | passed |
| Defrost test                  | passed |

**EN 14511-2 | Heating**

|             | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 8.64 kW         | 8.42 kW            |
| El input    | 1.90 kW         | 2.89 kW            |
| COP         | 4.54            | 2.92               |

**EN 12102-1 | Average Climate**

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 39 dB(A)        | 39 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

**EN 14825 | Average Climate**

|               | Low temperature | Medium temperature |
|---------------|-----------------|--------------------|
| $\eta_s$      | 175 %           | 130 %              |
| Prated        | 10.61 kW        | 10.72 kW           |
| SCOP          | 4.46            | 3.34               |
| Tbiv          | -7 °C           | -7 °C              |
| TOL           | -20 °C          | -20 °C             |
| Pdh Tj = -7°C | 9.39 kW         | 9.49 kW            |
| COP Tj = -7°C | 3.12            | 2.26               |
| Pdh Tj = +2°C | 5.72 kW         | 5.91 kW            |
| COP Tj = +2°C | 4.29            | 3.19               |
| Pdh Tj = +7°C | 8.88 kW         | 5.39 kW            |
| COP Tj = +7°C | 5.68            | 4.27               |
| Pdh Tj = 12°C | 6.67 kW         | 6.42 kW            |
| COP Tj = 12°C | 7.74            | 5.75               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 9.39 kW     | 9.49 kW     |
| COP Tj = Tbiv                                       | 3.12        | 2.26        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 8.55 kW     | 9.21 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.80        | 2.05        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.98        | 0.99        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 59 W        | 59 W        |
| PTO   | 0 W         | 0 W         |
| PSB   | 25 W        | 25 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.11 kW     | 1.57 kW     |
| Annual energy consumption Qhe                       | 4917 kWh    | 6638 kWh    |

**Model Vitocal 200-S AWB-M 201.D10**

|                                     |                             |
|-------------------------------------|-----------------------------|
| Model name                          | Vitocal 200-S AWB-M 201.D10 |
| Application                         | Heating (medium temp)       |
| Units                               | Indoor, Outdoor             |
| Climate zone (for heating)          | n/a                         |
| Cooling mode application (optional) | n/a                         |
| Any additional heat sources         | n/a                         |

**General data**

|                  |             |
|------------------|-------------|
| Power supply     | 1x230V 50Hz |
| Off-peak product | Yes         |

**Outdoor Air/Water****EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

|                               |        |
|-------------------------------|--------|
| Complete power supply failure | passed |
| Defrost test                  | passed |

**EN 14511-2 | Heating**

|             | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 7.01 kW         | 7.93 kW            |
| El input    | 1.49 kW         | 2.73 kW            |
| COP         | 4.69            | 2.90               |

**EN 12102-1 | Average Climate**

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 39 dB(A)        | 39 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

**EN 14825 | Average Climate**

|               | Low temperature | Medium temperature |
|---------------|-----------------|--------------------|
| $\eta_s$      | 176 %           | 129 %              |
| Prated        | 9.32 kW         | 9.35 kW            |
| SCOP          | 4.47            | 3.29               |
| Tbiv          | -7 °C           | -7 °C              |
| TOL           | -20 °C          | -20 °C             |
| Pdh Tj = -7°C | 8.25 kW         | 8.27 kW            |
| COP Tj = -7°C | 3.24            | 2.26               |
| Pdh Tj = +2°C | 5.32 kW         | 6.07 kW            |
| COP Tj = +2°C | 4.32            | 3.15               |
| Pdh Tj = +7°C | 6.60 kW         | 5.37 kW            |
| COP Tj = +7°C | 5.81            | 4.21               |
| Pdh Tj = 12°C | 6.63 kW         | 6.41 kW            |
| COP Tj = 12°C | 7.51            | 5.70               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 8.25 kW     | 8.27 kW     |
| COP Tj = Tbiv                                       | 3.24        | 2.26        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.51 kW     | 8.04 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.90        | 2.04        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.98        | 0.99        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 50 W        | 50 W        |
| PTO   | 0 W         | 0 W         |
| PSB   | 25 W        | 25 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 1.86 kW     | 1.36 kW     |
| Annual energy consumption Qhe                       | 4314 kWh    | 5867 kWh    |

**Model Vitocal 200-S AWB-M 201.D13**

|                                     |                             |
|-------------------------------------|-----------------------------|
| Model name                          | Vitocal 200-S AWB-M 201.D13 |
| Application                         | Heating (medium temp)       |
| Units                               | Indoor, Outdoor             |
| Climate zone (for heating)          | n/a                         |
| Cooling mode application (optional) | n/a                         |
| Any additional heat sources         | n/a                         |

**General data**

|                  |             |
|------------------|-------------|
| Power supply     | 1x230V 50Hz |
| Off-peak product | Yes         |

**Outdoor Air/Water****EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

|                               |        |
|-------------------------------|--------|
| Complete power supply failure | passed |
| Defrost test                  | passed |

**EN 14511-2 | Heating**

|             | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 7.85 kW         | 7.93 kW            |
| El input    | 1.66 kW         | 2.73 kW            |
| COP         | 4.72            | 2.90               |

**EN 12102-1 | Average Climate**

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 39 dB(A)        | 39 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

**EN 14825 | Average Climate**

|               | Low temperature | Medium temperature |
|---------------|-----------------|--------------------|
| $\eta_s$      | 175 %           | 130 %              |
| Prated        | 9.99 kW         | 10.07 kW           |
| SCOP          | 4.46            | 3.32               |
| Tbiv          | -7 °C           | -7 °C              |
| TOL           | -20 °C          | -20 °C             |
| Pdh Tj = -7°C | 8.83 kW         | 8.91 kW            |
| COP Tj = -7°C | 3.19            | 2.27               |
| Pdh Tj = +2°C | 5.71 kW         | 5.90 kW            |
| COP Tj = +2°C | 4.30            | 3.17               |
| Pdh Tj = +7°C | 8.86 kW         | 5.38 kW            |
| COP Tj = +7°C | 5.63            | 4.24               |
| Pdh Tj = 12°C | 6.65 kW         | 6.42 kW            |
| COP Tj = 12°C | 7.64            | 5.72               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 8.83 kW     | 8.91 kW     |
| COP Tj = Tbiv                                       | 3.19        | 2.27        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 8.06 kW     | 8.59 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.86        | 2.04        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.98        | 0.99        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 50 W        | 50 W        |
| PTO   | 0 W         | 0 W         |
| PSB   | 25 W        | 25 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 1.98 kW     | 1.54 kW     |
| Annual energy consumption Qhe                       | 4625 kWh    | 6275 kWh    |

**Model Vitocal 200-S AWB-M 201.D16**

|                                     |                             |
|-------------------------------------|-----------------------------|
| Model name                          | Vitocal 200-S AWB-M 201.D16 |
| Application                         | Heating (medium temp)       |
| Units                               | Indoor, Outdoor             |
| Climate zone (for heating)          | n/a                         |
| Cooling mode application (optional) | n/a                         |
| Any additional heat sources         | n/a                         |

**General data**

|                  |             |
|------------------|-------------|
| Power supply     | 1x230V 50Hz |
| Off-peak product | Yes         |

**Outdoor Air/Water****EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

|                               |        |
|-------------------------------|--------|
| Complete power supply failure | passed |
| Defrost test                  | passed |

**EN 14511-2 | Heating**

|             | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 8.64 kW         | 8.42 kW            |
| El input    | 1.90 kW         | 2.89 kW            |
| COP         | 4.54            | 2.92               |

**EN 12102-1 | Average Climate**

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 39 dB(A)        | 39 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

**EN 14825 | Average Climate**

|               | Low temperature | Medium temperature |
|---------------|-----------------|--------------------|
| $\eta_s$      | 175 %           | 130 %              |
| Prated        | 10.61 kW        | 10.72 kW           |
| SCOP          | 4.46            | 3.34               |
| Tbiv          | -7 °C           | -7 °C              |
| TOL           | -20 °C          | -20 °C             |
| Pdh Tj = -7°C | 9.39 kW         | 9.49 kW            |
| COP Tj = -7°C | 3.12            | 2.26               |
| Pdh Tj = +2°C | 5.72 kW         | 5.91 kW            |
| COP Tj = +2°C | 4.29            | 3.19               |
| Pdh Tj = +7°C | 8.88 kW         | 5.39 kW            |
| COP Tj = +7°C | 5.68            | 4.27               |
| Pdh Tj = 12°C | 6.67 kW         | 6.42 kW            |
| COP Tj = 12°C | 7.74            | 5.75               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 9.39 kW     | 9.49 kW     |
| COP Tj = Tbiv                                       | 3.12        | 2.26        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 8.55 kW     | 9.21 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.80        | 2.05        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.98        | 0.99        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 59 W        | 59 W        |
| PTO   | 0 W         | 0 W         |
| PSB   | 25 W        | 25 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.11 kW     | 1.57 kW     |
| Annual energy consumption Qhe                       | 4917 kWh    | 6638 kWh    |

**Model Vitocal 200-S AWB-E-M 201.D10**

|                                     |                               |
|-------------------------------------|-------------------------------|
| Model name                          | Vitocal 200-S AWB-E-M 201.D10 |
| Application                         | Heating (medium temp)         |
| Units                               | Indoor, Outdoor               |
| Climate zone (for heating)          | n/a                           |
| Cooling mode application (optional) | n/a                           |
| Any additional heat sources         | n/a                           |

**General data**

|                  |             |
|------------------|-------------|
| Power supply     | 1x230V 50Hz |
| Off-peak product | Yes         |

**Outdoor Air/Water****EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

|                               |        |
|-------------------------------|--------|
| Complete power supply failure | passed |
| Defrost test                  | passed |

**EN 14511-2 | Heating**

|             | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 7.01 kW         | 7.93 kW            |
| El input    | 1.49 kW         | 2.73 kW            |
| COP         | 4.69            | 2.90               |

**EN 12102-1 | Average Climate**

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 39 dB(A)        | 39 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

**EN 14825 | Average Climate**

|               | Low temperature | Medium temperature |
|---------------|-----------------|--------------------|
| $\eta_s$      | 176 %           | 129 %              |
| Prated        | 9.32 kW         | 9.35 kW            |
| SCOP          | 4.47            | 3.29               |
| Tbiv          | -7 °C           | -7 °C              |
| TOL           | -20 °C          | -20 °C             |
| Pdh Tj = -7°C | 8.25 kW         | 8.27 kW            |
| COP Tj = -7°C | 3.24            | 2.26               |
| Pdh Tj = +2°C | 5.32 kW         | 6.07 kW            |
| COP Tj = +2°C | 4.32            | 3.15               |
| Pdh Tj = +7°C | 6.60 kW         | 5.37 kW            |
| COP Tj = +7°C | 5.81            | 4.21               |
| Pdh Tj = 12°C | 6.63 kW         | 6.41 kW            |
| COP Tj = 12°C | 7.51            | 5.70               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 8.25 kW     | 8.27 kW     |
| COP Tj = Tbiv                                       | 3.24        | 2.26        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.51 kW     | 8.04 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.90        | 2.04        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.98        | 0.99        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 50 W        | 50 W        |
| PTO   | 0 W         | 0 W         |
| PSB   | 25 W        | 25 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 1.86 kW     | 1.36 kW     |
| Annual energy consumption Qhe                       | 4314 kWh    | 5867 kWh    |

**Model Vitocal 200-S AWB-E-M 201.D13**

|                                     |                               |
|-------------------------------------|-------------------------------|
| Model name                          | Vitocal 200-S AWB-E-M 201.D13 |
| Application                         | Heating (medium temp)         |
| Units                               | Indoor, Outdoor               |
| Climate zone (for heating)          | n/a                           |
| Cooling mode application (optional) | n/a                           |
| Any additional heat sources         | n/a                           |

**General data**

|                  |             |
|------------------|-------------|
| Power supply     | 1x230V 50Hz |
| Off-peak product | Yes         |

**Outdoor Air/Water****EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

|                               |        |
|-------------------------------|--------|
| Complete power supply failure | passed |
| Defrost test                  | passed |

**EN 14511-2 | Heating**

|             | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 7.85 kW         | 7.93 kW            |
| El input    | 1.66 kW         | 2.73 kW            |
| COP         | 4.72            | 2.90               |

**EN 12102-1 | Average Climate**

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 39 dB(A)        | 39 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

**EN 14825 | Average Climate**

|               | Low temperature | Medium temperature |
|---------------|-----------------|--------------------|
| $\eta_s$      | 175 %           | 130 %              |
| Prated        | 9.99 kW         | 10.07 kW           |
| SCOP          | 4.46            | 3.32               |
| Tbiv          | -7 °C           | -7 °C              |
| TOL           | -20 °C          | -20 °C             |
| Pdh Tj = -7°C | 8.83 kW         | 8.91 kW            |
| COP Tj = -7°C | 3.19            | 2.27               |
| Pdh Tj = +2°C | 5.71 kW         | 5.90 kW            |
| COP Tj = +2°C | 4.30            | 3.17               |
| Pdh Tj = +7°C | 8.86 kW         | 5.38 kW            |
| COP Tj = +7°C | 5.63            | 4.24               |
| Pdh Tj = 12°C | 6.65 kW         | 6.42 kW            |
| COP Tj = 12°C | 7.64            | 5.72               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 8.83 kW     | 8.91 kW     |
| COP Tj = Tbiv                                       | 3.19        | 2.27        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 8.06 kW     | 8.59 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.86        | 2.04        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.98        | 0.99        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 50 W        | 50 W        |
| PTO   | 0 W         | 0 W         |
| PSB   | 25 W        | 25 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 1.98 kW     | 1.54 kW     |
| Annual energy consumption Qhe                       | 4625 kWh    | 6275 kWh    |

**Model Vitocal 200-S AWB-E-M 201.D16**

|                                     |                               |
|-------------------------------------|-------------------------------|
| Model name                          | Vitocal 200-S AWB-E-M 201.D16 |
| Application                         | Heating (medium temp)         |
| Units                               | Indoor, Outdoor               |
| Climate zone (for heating)          | n/a                           |
| Cooling mode application (optional) | n/a                           |
| Any additional heat sources         | n/a                           |

**General data**

|                  |             |
|------------------|-------------|
| Power supply     | 1x230V 50Hz |
| Off-peak product | Yes         |

**Outdoor Air/Water****EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

|                               |        |
|-------------------------------|--------|
| Complete power supply failure | passed |
| Defrost test                  | passed |

**EN 14511-2 | Heating**

|             | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 8.64 kW         | 8.42 kW            |
| El input    | 1.90 kW         | 2.89 kW            |
| COP         | 4.54            | 2.92               |

**EN 12102-1 | Average Climate**

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 39 dB(A)        | 39 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

**EN 14825 | Average Climate**

|               | Low temperature | Medium temperature |
|---------------|-----------------|--------------------|
| $\eta_s$      | 175 %           | 130 %              |
| Prated        | 10.61 kW        | 10.72 kW           |
| SCOP          | 4.46            | 3.34               |
| Tbiv          | -7 °C           | -7 °C              |
| TOL           | -20 °C          | -20 °C             |
| Pdh Tj = -7°C | 9.39 kW         | 9.49 kW            |
| COP Tj = -7°C | 3.12            | 2.26               |
| Pdh Tj = +2°C | 5.72 kW         | 5.91 kW            |
| COP Tj = +2°C | 4.29            | 3.19               |
| Pdh Tj = +7°C | 8.88 kW         | 5.39 kW            |
| COP Tj = +7°C | 5.68            | 4.27               |
| Pdh Tj = 12°C | 6.67 kW         | 6.42 kW            |
| COP Tj = 12°C | 7.74            | 5.75               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 9.39 kW     | 9.49 kW     |
| COP Tj = Tbiv                                       | 3.12        | 2.26        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 8.55 kW     | 9.21 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.80        | 2.05        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.98        | 0.99        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 59 W        | 59 W        |
| PTO   | 0 W         | 0 W         |
| PSB   | 25 W        | 25 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.11 kW     | 1.57 kW     |
| Annual energy consumption Qhe                       | 4917 kWh    | 6638 kWh    |

**Model Vitocal 222-S AWBT-M 221.C10**

|                                     |                              |
|-------------------------------------|------------------------------|
| Model name                          | Vitocal 222-S AWBT-M 221.C10 |
| Application                         | Heating (medium temp)        |
| Units                               | Indoor, Outdoor              |
| Climate zone (for heating)          | n/a                          |
| Cooling mode application (optional) | n/a                          |
| Any additional heat sources         | n/a                          |

**General data**

|                  |             |
|------------------|-------------|
| Power supply     | 1x230V 50Hz |
| Off-peak product | Yes         |

**Outdoor Air/Water****EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

|                               |        |
|-------------------------------|--------|
| Complete power supply failure | passed |
| Defrost test                  | passed |

**EN 14511-2 | Heating**

|             | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 7.01 kW         | 7.93 kW            |
| El input    | 1.49 kW         | 2.73 kW            |
| COP         | 4.69            | 2.90               |

**EN 12102-1 | Average Climate**

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 39 dB(A)        | 39 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

**EN 14825 | Average Climate**

|               | Low temperature | Medium temperature |
|---------------|-----------------|--------------------|
| $\eta_s$      | 176 %           | 129 %              |
| Prated        | 9.32 kW         | 9.35 kW            |
| SCOP          | 4.47            | 3.29               |
| Tbiv          | -7 °C           | -7 °C              |
| TOL           | -20 °C          | -20 °C             |
| Pdh Tj = -7°C | 8.25 kW         | 8.27 kW            |
| COP Tj = -7°C | 3.24            | 2.26               |
| Pdh Tj = +2°C | 5.32 kW         | 6.07 kW            |
| COP Tj = +2°C | 4.32            | 3.15               |
| Pdh Tj = +7°C | 6.60 kW         | 5.37 kW            |
| COP Tj = +7°C | 5.81            | 4.21               |
| Pdh Tj = 12°C | 6.63 kW         | 6.41 kW            |
| COP Tj = 12°C | 7.51            | 5.70               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 8.25 kW     | 8.27 kW     |
| COP Tj = Tbiv                                       | 3.24        | 2.26        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.51 kW     | 8.04 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.90        | 2.04        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.98        | 0.99        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 50 W        | 50 W        |
| PTO   | 0 W         | 0 W         |
| PSB   | 25 W        | 25 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 1.86 kW     | 1.36 kW     |
| Annual energy consumption Qhe                       | 4314 kWh    | 5867 kWh    |

**Model Vitocal 222-S AWBT-M 221.C13**

|                                     |                              |
|-------------------------------------|------------------------------|
| Model name                          | Vitocal 222-S AWBT-M 221.C13 |
| Application                         | Heating (medium temp)        |
| Units                               | Indoor, Outdoor              |
| Climate zone (for heating)          | n/a                          |
| Cooling mode application (optional) | n/a                          |
| Any additional heat sources         | n/a                          |

**General data**

|                  |             |
|------------------|-------------|
| Power supply     | 1x230V 50Hz |
| Off-peak product | Yes         |

**Outdoor Air/Water****EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

|                               |        |
|-------------------------------|--------|
| Complete power supply failure | passed |
| Defrost test                  | passed |

**EN 14511-2 | Heating**

|             | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 7.85 kW         | 7.93 kW            |
| El input    | 1.66 kW         | 2.73 kW            |
| COP         | 4.72            | 2.90               |

**EN 12102-1 | Average Climate**

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 39 dB(A)        | 39 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

**EN 14825 | Average Climate**

|               | Low temperature | Medium temperature |
|---------------|-----------------|--------------------|
| $\eta_s$      | 175 %           | 130 %              |
| Prated        | 9.99 kW         | 10.07 kW           |
| SCOP          | 4.46            | 3.32               |
| Tbiv          | -7 °C           | -7 °C              |
| TOL           | -20 °C          | -20 °C             |
| Pdh Tj = -7°C | 8.83 kW         | 8.91 kW            |
| COP Tj = -7°C | 3.19            | 2.27               |
| Pdh Tj = +2°C | 5.71 kW         | 5.90 kW            |
| COP Tj = +2°C | 4.30            | 3.17               |
| Pdh Tj = +7°C | 8.86 kW         | 5.38 kW            |
| COP Tj = +7°C | 5.63            | 4.24               |
| Pdh Tj = 12°C | 6.65 kW         | 6.42 kW            |
| COP Tj = 12°C | 7.64            | 5.72               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 8.83 kW     | 8.91 kW     |
| COP Tj = Tbiv                                       | 3.19        | 2.27        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 8.06 kW     | 8.59 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.86        | 2.04        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.98        | 0.99        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 50 W        | 50 W        |
| PTO   | 0 W         | 0 W         |
| PSB   | 25 W        | 25 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 1.98 kW     | 1.54 kW     |
| Annual energy consumption Qhe                       | 4625 kWh    | 6275 kWh    |

**Model Vitocal 222-S AWBT-M 221.C16**

|                                     |                              |
|-------------------------------------|------------------------------|
| Model name                          | Vitocal 222-S AWBT-M 221.C16 |
| Application                         | Heating (medium temp)        |
| Units                               | Indoor, Outdoor              |
| Climate zone (for heating)          | n/a                          |
| Cooling mode application (optional) | n/a                          |
| Any additional heat sources         | n/a                          |

**General data**

|                  |             |
|------------------|-------------|
| Power supply     | 1x230V 50Hz |
| Off-peak product | Yes         |

**Outdoor Air/Water****EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

|                               |        |
|-------------------------------|--------|
| Complete power supply failure | passed |
| Defrost test                  | passed |

**EN 14511-2 | Heating**

|             | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 8.64 kW         | 8.42 kW            |
| El input    | 1.90 kW         | 2.89 kW            |
| COP         | 4.54            | 2.92               |

**EN 12102-1 | Average Climate**

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 39 dB(A)        | 39 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

**EN 14825 | Average Climate**

|               | Low temperature | Medium temperature |
|---------------|-----------------|--------------------|
| $\eta_s$      | 175 %           | 130 %              |
| Prated        | 10.61 kW        | 10.72 kW           |
| SCOP          | 4.46            | 3.34               |
| Tbiv          | -7 °C           | -7 °C              |
| TOL           | -20 °C          | -20 °C             |
| Pdh Tj = -7°C | 9.39 kW         | 9.49 kW            |
| COP Tj = -7°C | 3.12            | 2.26               |
| Pdh Tj = +2°C | 5.72 kW         | 5.91 kW            |
| COP Tj = +2°C | 4.29            | 3.19               |
| Pdh Tj = +7°C | 8.88 kW         | 5.39 kW            |
| COP Tj = +7°C | 5.68            | 4.27               |
| Pdh Tj = 12°C | 6.67 kW         | 6.42 kW            |
| COP Tj = 12°C | 7.74            | 5.75               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 9.39 kW     | 9.49 kW     |
| COP Tj = Tbiv                                       | 3.12        | 2.26        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 8.55 kW     | 9.21 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.80        | 2.05        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.98        | 0.99        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 59 W        | 59 W        |
| PTO   | 0 W         | 0 W         |
| PSB   | 25 W        | 25 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.11 kW     | 1.57 kW     |
| Annual energy consumption Qhe                       | 4917 kWh    | 6638 kWh    |

**Model Vitocal 222-S AWBT-M-E -AC 221.C10**

|                                     |                                    |
|-------------------------------------|------------------------------------|
| Model name                          | Vitocal 222-S AWBT-M-E -AC 221.C10 |
| Application                         | Heating (medium temp)              |
| Units                               | Indoor, Outdoor                    |
| Climate zone (for heating)          | n/a                                |
| Cooling mode application (optional) | n/a                                |
| Any additional heat sources         | n/a                                |

**General data**

|                  |             |
|------------------|-------------|
| Power supply     | 1x230V 50Hz |
| Off-peak product | Yes         |

**Outdoor Air/Water****EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

|                               |        |
|-------------------------------|--------|
| Complete power supply failure | passed |
| Defrost test                  | passed |

**EN 14511-2 | Heating**

|             | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 7.01 kW         | 7.93 kW            |
| El input    | 1.49 kW         | 2.73 kW            |
| COP         | 4.69            | 2.90               |

**EN 12102-1 | Average Climate**

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 39 dB(A)        | 39 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

**EN 14825 | Average Climate**

|               | Low temperature | Medium temperature |
|---------------|-----------------|--------------------|
| $\eta_s$      | 176 %           | 129 %              |
| Prated        | 9.32 kW         | 9.35 kW            |
| SCOP          | 4.47            | 3.29               |
| Tbiv          | -7 °C           | -7 °C              |
| TOL           | -20 °C          | -20 °C             |
| Pdh Tj = -7°C | 8.25 kW         | 8.27 kW            |
| COP Tj = -7°C | 3.24            | 2.26               |
| Pdh Tj = +2°C | 5.32 kW         | 6.07 kW            |
| COP Tj = +2°C | 4.32            | 3.15               |
| Pdh Tj = +7°C | 6.60 kW         | 5.37 kW            |
| COP Tj = +7°C | 5.81            | 4.21               |
| Pdh Tj = 12°C | 6.63 kW         | 6.41 kW            |
| COP Tj = 12°C | 7.51            | 5.70               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 8.25 kW     | 8.27 kW     |
| COP Tj = Tbiv                                       | 3.24        | 2.26        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.51 kW     | 8.04 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.90        | 2.04        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.98        | 0.99        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 50 W        | 50 W        |
| PTO   | 0 W         | 0 W         |
| PSB   | 25 W        | 25 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 1.86 kW     | 1.36 kW     |
| Annual energy consumption Qhe                       | 4314 kWh    | 5867 kWh    |

**Model Vitocal 222-S AWBT-M-E-AC 221.C13**

|                                     |                                   |
|-------------------------------------|-----------------------------------|
| Model name                          | Vitocal 222-S AWBT-M-E-AC 221.C13 |
| Application                         | Heating (medium temp)             |
| Units                               | Indoor, Outdoor                   |
| Climate zone (for heating)          | n/a                               |
| Cooling mode application (optional) | n/a                               |
| Any additional heat sources         | n/a                               |

**General data**

|                  |             |
|------------------|-------------|
| Power supply     | 1x230V 50Hz |
| Off-peak product | Yes         |

**Outdoor Air/Water****EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

|                               |        |
|-------------------------------|--------|
| Complete power supply failure | passed |
| Defrost test                  | passed |

**EN 14511-2 | Heating**

|             | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 7.85 kW         | 7.93 kW            |
| El input    | 1.66 kW         | 2.73 kW            |
| COP         | 4.72            | 2.90               |

**EN 12102-1 | Average Climate**

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 39 dB(A)        | 39 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

**EN 14825 | Average Climate**

|               | Low temperature | Medium temperature |
|---------------|-----------------|--------------------|
| $\eta_s$      | 175 %           | 130 %              |
| Prated        | 9.99 kW         | 10.07 kW           |
| SCOP          | 4.46            | 3.32               |
| Tbiv          | -7 °C           | -7 °C              |
| TOL           | -20 °C          | -20 °C             |
| Pdh Tj = -7°C | 8.83 kW         | 8.91 kW            |
| COP Tj = -7°C | 3.19            | 2.27               |
| Pdh Tj = +2°C | 5.71 kW         | 5.90 kW            |
| COP Tj = +2°C | 4.30            | 3.17               |
| Pdh Tj = +7°C | 8.86 kW         | 5.38 kW            |
| COP Tj = +7°C | 5.63            | 4.24               |
| Pdh Tj = 12°C | 6.65 kW         | 6.42 kW            |
| COP Tj = 12°C | 7.64            | 5.72               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 8.83 kW     | 8.91 kW     |
| COP Tj = Tbiv                                       | 3.19        | 2.27        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 8.06 kW     | 8.59 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.86        | 2.04        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.98        | 0.99        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 50 W        | 50 W        |
| PTO   | 0 W         | 0 W         |
| PSB   | 25 W        | 25 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 1.98 kW     | 1.54 kW     |
| Annual energy consumption Qhe                       | 4625 kWh    | 6275 kWh    |

**Model Vitocal 222-S AWBT-M-E-AC 221.C16**

|                                     |                                   |
|-------------------------------------|-----------------------------------|
| Model name                          | Vitocal 222-S AWBT-M-E-AC 221.C16 |
| Application                         | Heating (medium temp)             |
| Units                               | Indoor, Outdoor                   |
| Climate zone (for heating)          | n/a                               |
| Cooling mode application (optional) | n/a                               |
| Any additional heat sources         | n/a                               |

**General data**

|                  |             |
|------------------|-------------|
| Power supply     | 1x230V 50Hz |
| Off-peak product | Yes         |

**Outdoor Air/Water****EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

|                               |        |
|-------------------------------|--------|
| Complete power supply failure | passed |
| Defrost test                  | passed |

**EN 14511-2 | Heating**

|             | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 8.64 kW         | 8.42 kW            |
| El input    | 1.90 kW         | 2.89 kW            |
| COP         | 4.54            | 2.92               |

**EN 12102-1 | Average Climate**

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 39 dB(A)        | 39 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

**EN 14825 | Average Climate**

|               | Low temperature | Medium temperature |
|---------------|-----------------|--------------------|
| $\eta_s$      | 175 %           | 130 %              |
| Prated        | 10.61 kW        | 10.72 kW           |
| SCOP          | 4.46            | 3.34               |
| Tbiv          | -7 °C           | -7 °C              |
| TOL           | -20 °C          | -20 °C             |
| Pdh Tj = -7°C | 9.39 kW         | 9.49 kW            |
| COP Tj = -7°C | 3.12            | 2.26               |
| Pdh Tj = +2°C | 5.72 kW         | 5.91 kW            |
| COP Tj = +2°C | 4.29            | 3.19               |
| Pdh Tj = +7°C | 8.88 kW         | 5.39 kW            |
| COP Tj = +7°C | 5.68            | 4.27               |
| Pdh Tj = 12°C | 6.67 kW         | 6.42 kW            |
| COP Tj = 12°C | 7.74            | 5.75               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 9.39 kW     | 9.49 kW     |
| COP Tj = Tbiv                                       | 3.12        | 2.26        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 8.55 kW     | 9.21 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.80        | 2.05        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.98        | 0.99        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 59 W        | 59 W        |
| PTO   | 0 W         | 0 W         |
| PSB   | 25 W        | 25 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.11 kW     | 1.40 kW     |
| Annual energy consumption Qhe                       | 4917 kWh    | 6638 kWh    |

**Model Vitocal 222-S AWBT-M-E 221.C10**

|                                     |                                |
|-------------------------------------|--------------------------------|
| Model name                          | Vitocal 222-S AWBT-M-E 221.C10 |
| Application                         | Heating (medium temp)          |
| Units                               | Indoor, Outdoor                |
| Climate zone (for heating)          | n/a                            |
| Cooling mode application (optional) | n/a                            |
| Any additional heat sources         | n/a                            |

**General data**

|                  |             |
|------------------|-------------|
| Power supply     | 1x230V 50Hz |
| Off-peak product | Yes         |

**Outdoor Air/Water****EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

|                               |        |
|-------------------------------|--------|
| Complete power supply failure | passed |
| Defrost test                  | passed |

**EN 14511-2 | Heating**

|             | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 7.01 kW         | 7.93 kW            |
| El input    | 1.49 kW         | 2.73 kW            |
| COP         | 4.69            | 2.90               |

**EN 12102-1 | Average Climate**

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 39 dB(A)        | 39 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

**EN 14825 | Average Climate**

|               | Low temperature | Medium temperature |
|---------------|-----------------|--------------------|
| $\eta_s$      | 176 %           | 129 %              |
| Prated        | 9.32 kW         | 9.35 kW            |
| SCOP          | 4.47            | 3.29               |
| Tbiv          | -7 °C           | -7 °C              |
| TOL           | -20 °C          | -20 °C             |
| Pdh Tj = -7°C | 8.25 kW         | 8.27 kW            |
| COP Tj = -7°C | 3.24            | 2.26               |
| Pdh Tj = +2°C | 5.32 kW         | 6.07 kW            |
| COP Tj = +2°C | 4.32            | 3.15               |
| Pdh Tj = +7°C | 6.60 kW         | 5.37 kW            |
| COP Tj = +7°C | 5.81            | 4.21               |
| Pdh Tj = 12°C | 6.63 kW         | 6.41 kW            |
| COP Tj = 12°C | 7.51            | 5.70               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 8.25 kW     | 8.27 kW     |
| COP Tj = Tbiv                                       | 3.24        | 2.26        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.51 kW     | 8.04 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.90        | 2.04        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.98        | 0.99        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 50 W        | 50 W        |
| PTO   | 0 W         | 0 W         |
| PSB   | 25 W        | 25 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 1.86 kW     | 1.36 kW     |
| Annual energy consumption Qhe                       | 4314 kWh    | 5867 kWh    |

**Model Vitocal 222-S AWBT-M-E 221.C13**

|                                     |                                |
|-------------------------------------|--------------------------------|
| Model name                          | Vitocal 222-S AWBT-M-E 221.C13 |
| Application                         | Heating (medium temp)          |
| Units                               | Indoor, Outdoor                |
| Climate zone (for heating)          | n/a                            |
| Cooling mode application (optional) | n/a                            |
| Any additional heat sources         | n/a                            |

**General data**

|                  |             |
|------------------|-------------|
| Power supply     | 1x230V 50Hz |
| Off-peak product | Yes         |

**Outdoor Air/Water****EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

|                               |        |
|-------------------------------|--------|
| Complete power supply failure | passed |
| Defrost test                  | passed |

**EN 14511-2 | Heating**

|             | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 7.85 kW         | 7.93 kW            |
| El input    | 1.66 kW         | 2.73 kW            |
| COP         | 4.72            | 2.90               |

**EN 12102-1 | Average Climate**

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 39 dB(A)        | 39 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

**EN 14825 | Average Climate**

|               | Low temperature | Medium temperature |
|---------------|-----------------|--------------------|
| $\eta_s$      | 175 %           | 130 %              |
| Prated        | 9.99 kW         | 10.07 kW           |
| SCOP          | 4.46            | 3.32               |
| Tbiv          | -7 °C           | -7 °C              |
| TOL           | -20 °C          | -20 °C             |
| Pdh Tj = -7°C | 8.83 kW         | 8.91 kW            |
| COP Tj = -7°C | 3.19            | 2.27               |
| Pdh Tj = +2°C | 5.71 kW         | 5.90 kW            |
| COP Tj = +2°C | 4.30            | 3.17               |
| Pdh Tj = +7°C | 8.86 kW         | 5.38 kW            |
| COP Tj = +7°C | 5.63            | 4.24               |
| Pdh Tj = 12°C | 6.65 kW         | 6.42 kW            |
| COP Tj = 12°C | 7.64            | 5.72               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 8.83 kW     | 8.91 kW     |
| COP Tj = Tbiv                                       | 3.19        | 2.27        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 8.06 kW     | 8.59 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.86        | 2.04        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.98        | 0.99        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 50 W        | 50 W        |
| PTO   | 0 W         | 0 W         |
| PSB   | 25 W        | 25 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 1.98 kW     | 1.54 kW     |
| Annual energy consumption Qhe                       | 4625 kWh    | 6275 kWh    |

**Model Vitocal 222-S AWBT-M-E 221.C16**

|                                     |                                |
|-------------------------------------|--------------------------------|
| Model name                          | Vitocal 222-S AWBT-M-E 221.C16 |
| Application                         | Heating (medium temp)          |
| Units                               | Indoor, Outdoor                |
| Climate zone (for heating)          | n/a                            |
| Cooling mode application (optional) | n/a                            |
| Any additional heat sources         | n/a                            |

**General data**

|                  |             |
|------------------|-------------|
| Power supply     | 1x230V 50Hz |
| Off-peak product | Yes         |

**Outdoor Air/Water****EN 14511-4 | Heating**

Shutting off the heat transfer medium flow passed

|                               |        |
|-------------------------------|--------|
| Complete power supply failure | passed |
| Defrost test                  | passed |

**EN 14511-2 | Heating**

|             | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 8.64 kW         | 8.42 kW            |
| El input    | 1.90 kW         | 2.89 kW            |
| COP         | 4.54            | 2.92               |

**EN 12102-1 | Average Climate**

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 39 dB(A)        | 39 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

**EN 14825 | Average Climate**

|               | Low temperature | Medium temperature |
|---------------|-----------------|--------------------|
| $\eta_s$      | 175 %           | 130 %              |
| Prated        | 10.61 kW        | 10.72 kW           |
| SCOP          | 4.46            | 3.34               |
| Tbiv          | -7 °C           | -7 °C              |
| TOL           | -20 °C          | -20 °C             |
| Pdh Tj = -7°C | 9.39 kW         | 9.49 kW            |
| COP Tj = -7°C | 3.12            | 2.26               |
| Pdh Tj = +2°C | 5.72 kW         | 5.91 kW            |
| COP Tj = +2°C | 4.29            | 3.19               |
| Pdh Tj = +7°C | 8.88 kW         | 5.39 kW            |
| COP Tj = +7°C | 5.68            | 4.27               |
| Pdh Tj = 12°C | 6.67 kW         | 6.42 kW            |
| COP Tj = 12°C | 7.74            | 5.75               |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = Tbiv                                       | 9.39 kW     | 9.49 kW     |
| COP Tj = Tbiv                                       | 3.12        | 2.26        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 8.55 kW     | 9.21 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.80        | 2.05        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.98        | 0.99        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 59 W        | 59 W        |
| PTO   | 0 W         | 0 W         |
| PSB   | 25 W        | 25 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.11 kW     | 1.57 kW     |
| Annual energy consumption Qhe                       | 4917 kWh    | 6638 kWh    |