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### This information was generated by the HP KEYMARK database on 2 May 2023

| Summary of          | Aquarea AiO Split 5-9 kW STD (K Series)                        | Reg. No.                                  | 011-1W0605 |  |  |
|---------------------|--|---|------------|--|--|
| Certificate Holder  | Certificate Holder   |   |            |  |  |
| Name                | Panasonic Marketing Europe GmbH                                |   |            |  |  |
| Address             | Hagenauer Strasse 43, Wiesbaden                                | Hagenauer Strasse 43, Wiesbaden ZIP 65203 |            |  |  |
| City                | Wiesbaden  | Country                                   | Germany    |  |  |
| Certification Body  | DIN CERTCO Gesellschaft für Konformitätsbewertung mbH          |   |            |  |  |
| Subtype title       | Aquarea AiO Split 5-9 kW STD (K Series)                        |   |            |  |  |
| Heat Pump Type      | Outdoor Air/Water  |   |            |  |  |
| Refrigerant         | R32  |   |            |  |  |
| Mass of Refrigerant | 1.3 kg   |   |            |  |  |
| Certification Date  | 28.04.2023   |   |            |  |  |
| Testing basis       | European KEYMARK Scheme for Heat Pumps Rev. 11 (as of 2022-09) |   |            |  |  |

# Model: WH-ADC0309K3E5 / WH-UDZ05KE5

| Configure model                               |  |  |
|---|--|--|
| Model name WH-ADC0309K3E5 / WH-UDZ05KE5       |  |  |
| Application Heating + DHW + low temp          |  |  |
| Units Indoor + Outdoor                        |  |  |
| Climate Zone Colder Climate + Warmer Climate  |  |  |
| Reversibility Yes                             |  |  |
| Cooling mode application (optional) +7°C/12°C |  |  |

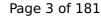
| General Data |             |  |
|--------------|-------------|--|
| Power supply | 1x230V 50Hz |  |

# Heating

| EN 14511-2                         |         |         |  |
|------------------------------------|---------|---------|--|
| Low temperature Medium temperature |         |         |  |
| Heat output                        | 5.00 kW | 5.00 kW |  |
| El input                           | 0.98 kW | 1.65 kW |  |
| СОР                                | 5.10    | 3.03    |  |

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

# Cooling





| EN 14511-2       |         |  |
|------------------|---------|--|
| +7°C/+12°C       |         |  |
| El input         | 1.64 kW |  |
| Cooling capacity | 5.00    |  |
| EER              | 3.05    |  |





|                               | +7°C/+12°C |
|-------------------------------|------------|
| Pdesignc                      | 5.00 kW    |
| SEER                          | 5.72       |
| Pdc Tj = 35°C                 | 5.00 kW    |
| EER Tj = 35°C                 | 3.64       |
| Cdc Tj = 35 °C                | 1.000      |
| Pdc Tj = 30°C                 | 3.68 kW    |
| EER Tj = 30°C                 | 5.18       |
| Cdc Tj = 30 °C                | 1.000      |
| Pdc Tj = 25°C                 | 2.37 kW    |
| EER Tj = 25°C                 | 6.47       |
| Cdc Tj = 25 °C                | 1.000      |
| Pdc Tj = 20°C                 | 1.05 kW    |
| EER Tj = 20°C                 | 8.94       |
| Cdc Tj = 20 °C                | 1.000      |
| Poff                          | 12 W       |
| РТО                           | 0 W        |
| PSB                           | 12 W       |
| PCK                           | o w        |
| Annual energy consumption Qce | 306 kWh    |



| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |
| Sound power level outdoor | 55 dB(A)        | 55 dB(A)           |

| EN 14825        |                 |                    |
|-----------------|-----------------|--------------------|
|                 | Low temperature | Medium temperature |
| $\eta_{s}$      | 237 %           | 165 %              |
| Prated          | 5.00 kW         | 4.00 kW            |
| SCOP            | 6.00            | 4.20               |
| Tbiv            | 2 °C            | 2 °C               |
| TOL             | 2 °C            | 2 °C               |
| Pdh Tj = +2°C   | 5.12 kW         | 4.05 kW            |
| COP Tj = +2°C   | 3.05            | 3.00               |
| Cdh Tj = +2 °C  | 0.970           | 0.970              |
| Pdh Tj = +7°C   | 3.27 kW         | 2.61 kW            |
| COP Tj = +7°C   | 5.75            | 3.63               |
| Cdh Tj = +7 °C  | 0.920           | 0.940              |
| Pdh Tj = 12°C   | 3.45 kW         | 3.32 kW            |
| COP Tj = 12°C   | 8.58            | 6.17               |
| Cdh Tj = +12 °C | 0.900           | 0.920              |





| 5.00 kW     | 4.00 kW   |
|-------------|---|
| 3.89        | 2.46  |
| 5.12 kW     | 4.05 kW   |
| 3.89        | 2.46  |
| 0.900       | 0.900   |
| 55 °C       | 55 °C   |
| 12 W        | 12 W  |
| 46 W        | 46 W  |
| 10 W        | 10 W  |
| 18 W        | 18 W  |
| Electricity | Electricity   |
| 0.00 kW     | 0.00 kW   |
| 1113 kWh    | 1274 kWh  |
|             | 3.89 5.12 kW 3.89 0.900 55 °C 12 W 46 W 10 W 18 W Electricity 0.00 kW |

### Colder Climate

| EN 12102-1                |                 |                    |  |
|---------------------------|-----------------|--------------------|--|
|                           | Low temperature | Medium temperature |  |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |  |
| Sound power level outdoor | 55 dB(A)        | 55 dB(A)           |  |



|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_{S}$  | 160 %           | 115 %              |
| Prated  | 6.00 kW         | 4.00 kW            |
| SCOP  | 4.08            | 2.95               |
| Tbiv  | -15 °C          | -15 °C             |
| TOL   | -22 °C          | -22 °C             |
| Pdh Tj = $-7^{\circ}$ C                             | 3.58 kW         | 2.40 kW            |
| $COPTj = -7^{\circ}C$                               | 3.73            | 2.53               |
| Cdh Tj = -7 °C                                      | 0.950           | 0.950              |
| Pdh Tj = $+2$ °C                                    | 2.47 kW         | 2.30 kW            |
| $COP Tj = +2^{\circ}C$                              | 4.50            | 3.53               |
| Cdh Tj = +2 °C                                      | 0.920           | 0.930              |
| Pdh Tj = $+7^{\circ}$ C                             | 2.99 kW         | 2.85 kW            |
| $COP Tj = +7^{\circ}C$                              | 7.25            | 5.61               |
| Cdh Tj = +7 °C                                      | 0.900           | 0.910              |
| Pdh Tj = 12°C                                       | 3.49 kW         | 3.44 kW            |
| COP Tj = 12°C                                       | 8.45            | 7.55               |
| Cdh Tj = +12 °C                                     | 0.900           | 0.900              |
| Pdh Tj = Tbiv                                       | 4.89 kW         | 3.26 kW            |
| COP Tj = Tbiv                                       | 2.80            | 1.77               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 3.99 kW         | 3.97 kW            |





| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.19        | 1.49        |
|---|-------------|-------------|
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 12 W        | 12 W        |
| РТО   | 46 W        | 46 W        |
| PSB   | 10 W        | 10 W        |
| PCK   | 18 W        | 18 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.01 kW     | 0.03 kW     |
| Annual energy consumption Qhe                       | 3625 kWh    | 3338 kWh    |
| Pdh Tj = -15°C (if TOL<-20°C)                       | 4.94        | 3.32        |
| COP Tj = -15°C (if TOL $<$ -20°C)                   | 2.80        | 1.77        |
| Cdh Tj = -15 °C                                     | 0.980       | 0.980       |
|   |             |             |

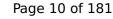
# **Average Climate**

| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |
| Sound power level outdoor | 55 dB(A)        | 55 dB(A)           |





|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| ης  | 202 %           | 142 %              |
| Prated  | 5.00 kW         | 5.00 kW            |
| SCOP  | 5.12            | 3.63               |
| Tbiv  | -10 °C          | -10 °C             |
| TOL   | -10 °C          | -10 °C             |
| Pdh Tj = $-7^{\circ}$ C                             | 4.41 kW         | 4.46 kW            |
| $COP Tj = -7^{\circ}C$                              | 2.76            | 2.30               |
| Cdh Tj = -7 °C                                      | 0.970           | 0.980              |
| Pdh Tj = $+2$ °C                                    | 2.64 kW         | 2.65 kW            |
| COP Tj = +2°C                                       | 5.44            | 3.58               |
| Cdh Tj = +2 °C                                      | 0.910           | 0.940              |
| Pdh Tj = $+7^{\circ}$ C                             | 2.95 kW         | 2.77 kW            |
| $COPTj = +7^{\circ}C$                               | 7.15            | 4.89               |
| Cdh Tj = $+7$ °C                                    | 0.900           | 0.920              |
| Pdh Tj = 12°C                                       | 3.46 kW         | 3.37 kW            |
| COP Tj = 12°C                                       | 9.55            | 6.92               |
| Cdh Tj = +12 °C                                     | 0.900           | 0.910              |
| Pdh Tj = Tbiv                                       | 5.00 kW         | 5.00 kW            |
| COP Tj = Tbiv                                       | 2.50            | 1.98               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.00 kW         | 5.03 kW            |





| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.50        | 1.98        |
|---|-------------|-------------|
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 12 W        | 12 W        |
| PTO   | 46 W        | 46 W        |
| PSB   | 10 W        | 10 W        |
| PCK   | 18 W        | 18 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.00 kW     |
| Annual energy consumption Qhe                       | 2018 kWh    | 2894 kWh    |

# Domestic Hot Water (DHW)

| EN 16147                        |            |  |
|---------------------------------|------------|--|
| Declared load profile           | L          |  |
| Efficiency ηDHW                 | 161 %      |  |
| СОР                             | 4.03       |  |
| Heating up time                 | 1:32 h:min |  |
| Standby power input             | 28.0 W     |  |
| Reference hot water temperature | 52.8 °C    |  |
| Mixed water at 40°C             | 245 I      |  |



### Colder Climate

| EN 16147                        |            |
|---------------------------------|------------|
| Declared load profile           |            |
|                                 | L          |
| Efficiency ηDHW                 | 113 %      |
| СОР                             | 2.82       |
| Heating up time                 | 1:32 h:min |
| Standby power input             | 36.0 W     |
| Reference hot water temperature | 52.8 °C    |
| Mixed water at 40°C             | 245 I      |

# Average Climate

| EN 16147                        |            |
|---------------------------------|------------|
|                                 |            |
| Declared load profile           | L          |
| Efficiency ηDHW                 | 140 %      |
| СОР                             | 3.51       |
| Heating up time                 | 1:32 h:min |
| Standby power input             | 32.0 W     |
| Reference hot water temperature | 52.8 °C    |
| Mixed water at 40°C             | 245 I      |



# Model: WH-ADC0309K3E5UK / WH-UDZ05KE5

| Configure model                              |                                |  |
|--|--------------------------------|--|
| Model name                                   | WH-ADC0309K3E5UK / WH-UDZ05KE5 |  |
| Application                                  | Heating + DHW + low temp       |  |
| Units  | Indoor + Outdoor               |  |
| Climate Zone Colder Climate + Warmer Climate |                                |  |
| Reversibility                                | Yes                            |  |
| Cooling mode application (optional)          | +7°C/12°C                      |  |

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

# Heating

| EN 14511-2                         |         |         |
|------------------------------------|---------|---------|
| Low temperature Medium temperature |         |         |
| Heat output                        | 5.00 kW | 5.00 kW |
| El input                           | 0.98 kW | 1.65 kW |
| СОР                                | 5.10    | 3.03    |

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

# Cooling





| EN 14511-2       |         |  |
|------------------|---------|--|
| +7°C/+12°C       |         |  |
| El input         | 1.64 kW |  |
| Cooling capacity | 5.00    |  |
| EER              | 3.05    |  |



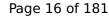


| This information was generated by the Hir KL | +7°C/+12°C |
|--|------------|
| Pdesignc                                     | 5.00 kW    |
| SEER   | 5.72       |
| Pdc Tj = 35°C                                | 5.00 kW    |
| EER Tj = 35°C                                | 3.64       |
| Cdc Tj = 35 °C                               | 1.000      |
| Pdc Tj = 30°C                                | 3.68 kW    |
| EER Tj = 30°C                                | 5.18       |
| Cdc Tj = 30 °C                               | 1.000      |
| Pdc Tj = 25°C                                | 2.37 kW    |
| EER Tj = 25°C                                | 6.47       |
| Cdc Tj = 25 °C                               | 1.000      |
| Pdc Tj = 20°C                                | 1.05 kW    |
| EER Tj = 20°C                                | 8.94       |
| Cdc Tj = 20 °C                               | 1.000      |
| Poff   | 12 W       |
| РТО  | 0 W        |
| PSB  | 12 W       |
| PCK  | 0 W        |
| Annual energy consumption Qce                | 306 kWh    |



| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |
| Sound power level outdoor | 55 dB(A)        | 55 dB(A)           |

| EN 14825        |                 |                    |
|-----------------|-----------------|--------------------|
|                 | Low temperature | Medium temperature |
| $\eta_{s}$      | 237 %           | 165 %              |
| Prated          | 5.00 kW         | 4.00 kW            |
| SCOP            | 6.00            | 4.20               |
| Tbiv            | 2 °C            | 2 °C               |
| TOL             | 2 °C            | 2 °C               |
| Pdh Tj = +2°C   | 5.12 kW         | 4.05 kW            |
| COP Tj = +2°C   | 3.05            | 3.00               |
| Cdh Tj = +2 °C  | 0.970           | 0.970              |
| Pdh Tj = +7°C   | 3.27 kW         | 2.61 kW            |
| COP Tj = +7°C   | 5.75            | 3.63               |
| Cdh Tj = +7 °C  | 0.920           | 0.940              |
| Pdh Tj = 12°C   | 3.45 kW         | 3.32 kW            |
| COP Tj = 12°C   | 8.58            | 6.17               |
| Cdh Tj = +12 °C | 0.900           | 0.920              |





| Pdh Tj = Tbiv                                       | 5.00 kW     | 4.00 kW     |
|---|-------------|-------------|
| COP Tj = Tbiv                                       | 3.89        | 2.46        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.12 kW     | 4.05 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.89        | 2.46        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 12 W        | 12 W        |
| РТО   | 46 W        | 46 W        |
| PSB   | 10 W        | 10 W        |
| PCK   | 18 W        | 18 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.00 kW     |
| Annual energy consumption Qhe                       | 1113 kWh    | 1274 kWh    |

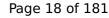
### Colder Climate

| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |
| Sound power level outdoor | 55 dB(A)        | 55 dB(A)           |



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| 160 % 6.00 kW 4.08 -15 °C -22 °C 3.58 kW | 115 % 4.00 kW 2.95 -15 °C -22 °C                                |
|--|---|
| 4.08<br>-15 °C<br>-22 °C                 | 2.95<br>-15 °C  |
| -15 °C<br>-22 °C                         | -15 °C  |
| -22 °C                                   |   |
|  | -22 °C  |
| 3 58 kW                                  |   |
| J.30 KVV                                 | 2.40 kW   |
| 3.73                                     | 2.53  |
| 0.950                                    | 0.950   |
| 2.47 kW                                  | 2.30 kW   |
| 4.50                                     | 3.53  |
| 0.920                                    | 0.930   |
| 2.99 kW                                  | 2.85 kW   |
| 7.25                                     | 5.61  |
| 0.900                                    | 0.910   |
| 3.49 kW                                  | 3.44 kW   |
| 8.45                                     | 7.55  |
| 0.900                                    | 0.900   |
| 4.89 kW                                  | 3.26 kW   |
| 2.80                                     | 1.77  |
| 3.99 kW                                  | 3.97 kW   |
| 3 0 2 4 0 7 0 3 8 0 4 2 1                | .73 .950 .47 kW .50 .920 .99 kW .25 .900 .49 kW .45 .900 .89 kW |





| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.19        | 1.49        |
|---|-------------|-------------|
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 12 W        | 12 W        |
| РТО   | 46 W        | 46 W        |
| PSB   | 10 W        | 10 W        |
| PCK   | 18 W        | 18 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.01 kW     | 0.03 kW     |
| Annual energy consumption Qhe                       | 3625 kWh    | 3338 kWh    |
| Pdh Tj = -15°C (if TOL<-20°C)                       | 4.94        | 3.32        |
| COP Tj = -15°C (if TOL<-20°C)                       | 2.80        | 1.77        |
| Cdh Tj = -15 °C                                     | 0.980       | 0.980       |

# **Average Climate**

| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |
| Sound power level outdoor | 55 dB(A)        | 55 dB(A)           |



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|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| ης  | 202 %           | 142 %              |
| Prated  | 5.00 kW         | 5.00 kW            |
| SCOP  | 5.12            | 3.63               |
| Tbiv  | -10 °C          | -10 °C             |
| TOL   | -10 °C          | -10 °C             |
| Pdh Tj = $-7^{\circ}$ C                             | 4.41 kW         | 4.46 kW            |
| $COP Tj = -7^{\circ}C$                              | 2.76            | 2.30               |
| Cdh Tj = -7 °C                                      | 0.970           | 0.980              |
| Pdh Tj = $+2$ °C                                    | 2.64 kW         | 2.65 kW            |
| COP Tj = +2°C                                       | 5.44            | 3.58               |
| Cdh Tj = +2 °C                                      | 0.910           | 0.940              |
| Pdh Tj = $+7^{\circ}$ C                             | 2.95 kW         | 2.77 kW            |
| $COPTj = +7^{\circ}C$                               | 7.15            | 4.89               |
| Cdh Tj = $+7$ °C                                    | 0.900           | 0.920              |
| Pdh Tj = 12°C                                       | 3.46 kW         | 3.37 kW            |
| COP Tj = 12°C                                       | 9.55            | 6.92               |
| Cdh Tj = +12 °C                                     | 0.900           | 0.910              |
| Pdh Tj = Tbiv                                       | 5.00 kW         | 5.00 kW            |
| COP Tj = Tbiv                                       | 2.50            | 1.98               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.00 kW         | 5.03 kW            |





| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.50        | 1.98        |
|---|-------------|-------------|
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 12 W        | 12 W        |
| PTO   | 46 W        | 46 W        |
| PSB   | 10 W        | 10 W        |
| PCK   | 18 W        | 18 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.00 kW     |
| Annual energy consumption Qhe                       | 2018 kWh    | 2894 kWh    |

# Domestic Hot Water (DHW)

| EN 16147                        |            |  |
|---------------------------------|------------|--|
| Declared load profile           | L          |  |
| Efficiency ηDHW                 | 161 %      |  |
| СОР                             | 4.03       |  |
| Heating up time                 | 1:32 h:min |  |
| Standby power input             | 28.0 W     |  |
| Reference hot water temperature | 52.8 °C    |  |
| Mixed water at 40°C             | 245 I      |  |



### Colder Climate

| EN 16147                        |            |  |
|---------------------------------|------------|--|
| Declared load profile           |            |  |
|                                 | L          |  |
| Efficiency ηDHW                 | 113 %      |  |
| СОР                             | 2.82       |  |
| Heating up time                 | 1:32 h:min |  |
| Standby power input             | 36.0 W     |  |
| Reference hot water temperature | 52.8 °C    |  |
| Mixed water at 40°C             | 245 I      |  |

# Average Climate

| EN 16147                        |            |  |
|---------------------------------|------------|--|
|                                 |            |  |
| Declared load profile           | L          |  |
| Efficiency ηDHW                 | 140 %      |  |
| СОР                             | 3.51       |  |
| Heating up time                 | 1:32 h:min |  |
| Standby power input             | 32.0 W     |  |
| Reference hot water temperature | 52.8 °C    |  |
| Mixed water at 40°C             | 245 I      |  |

# Model: WH-ADC0309K3E5AN / WH-UDZ05KE5

| Configure model                               |                                |  |
|---|--------------------------------|--|
| Model name                                    | WH-ADC0309K3E5AN / WH-UDZ05KE5 |  |
| Application Heating + DHW + low temp          |                                |  |
| Units Indoor + Outdoor                        |                                |  |
| Climate Zone Colder Climate + Warmer Climate  |                                |  |
| Reversibility Yes                             |                                |  |
| Cooling mode application (optional) +7°C/12°C |                                |  |

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

# Heating

| EN 14511-2                         |         |         |  |
|------------------------------------|---------|---------|--|
| Low temperature Medium temperature |         |         |  |
| Heat output                        | 5.00 kW | 5.00 kW |  |
| El input                           | 0.98 kW | 1.65 kW |  |
| СОР                                | 5.10    | 3.03    |  |

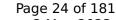
| EN 14511-4                                 |        |
|--|--------|
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure              | passed |
| Defrost test                               | passed |
| Starting and operating test                | passed |

# Cooling





| EN 14511-2            |         |  |  |
|-----------------------|---------|--|--|
| +7°C/+12°C            |         |  |  |
| El input              | 1.64 kW |  |  |
| Cooling capacity 5.00 |         |  |  |
| EER                   | 3.05    |  |  |





|                               | +7°C/+12°C |
|-------------------------------|------------|
| Pdesignc                      | 5.00 kW    |
| SEER                          | 5.72       |
| Pdc Tj = 35°C                 | 5.00 kW    |
| EER Tj = 35°C                 | 3.64       |
| Cdc Tj = 35 °C                | 1.000      |
| Pdc Tj = 30°C                 | 3.68 kW    |
| EER Tj = 30°C                 | 5.18       |
| Cdc Tj = 30 °C                | 1.000      |
| Pdc Tj = 25°C                 | 2.37 kW    |
| EER Tj = 25°C                 | 6.47       |
| Cdc Tj = 25 °C                | 1.000      |
| Pdc Tj = 20°C                 | 1.05 kW    |
| EER Tj = 20°C                 | 8.94       |
| Cdc Tj = 20 °C                | 1.000      |
| Poff                          | 12 W       |
| РТО                           | 0 W        |
| PSB                           | 12 W       |
| PCK                           | o w        |
| Annual energy consumption Qce | 306 kWh    |



| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |
| Sound power level outdoor | 55 dB(A)        | 55 dB(A)           |

| EN 14825                      |         |         |  |
|-------------------------------|---------|---------|--|
| Low temperature Medium temper |         |         |  |
| $\eta_{s}$                    | 237 %   | 165 %   |  |
| Prated                        | 5.00 kW | 4.00 kW |  |
| SCOP                          | 6.00    | 4.20    |  |
| Tbiv                          | 2 °C    | 2 °C    |  |
| TOL                           | 2 °C    | 2 °C    |  |
| Pdh Tj = +2°C                 | 5.12 kW | 4.05 kW |  |
| COP Tj = +2°C                 | 3.05    | 3.00    |  |
| Cdh Tj = +2 °C                | 0.970   | 0.970   |  |
| Pdh Tj = +7°C                 | 3.27 kW | 2.61 kW |  |
| COP Tj = +7°C                 | 5.75    | 3.63    |  |
| Cdh Tj = +7 °C                | 0.920   | 0.940   |  |
| Pdh Tj = 12°C                 | 3.45 kW | 3.32 kW |  |
| COP Tj = 12°C                 | 8.58    | 6.17    |  |
| Cdh Tj = +12 °C               | 0.900   | 0.920   |  |





| Pdh Tj = Tbiv                                       | 5.00 kW     | 4.00 kW     |
|---|-------------|-------------|
| COP Tj = Tbiv                                       | 3.89        | 2.46        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.12 kW     | 4.05 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.89        | 2.46        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 12 W        | 12 W        |
| РТО   | 46 W        | 46 W        |
| PSB   | 10 W        | 10 W        |
| PCK   | 18 W        | 18 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.00 kW     |
| Annual energy consumption Qhe                       | 1113 kWh    | 1274 kWh    |

### Colder Climate

| EN 12102-1                         |          |          |  |  |
|------------------------------------|----------|----------|--|--|
| Low temperature Medium temperature |          |          |  |  |
| Sound power level indoor           | 41 dB(A) | 41 dB(A) |  |  |
| Sound power level outdoor          | 55 dB(A) | 55 dB(A) |  |  |



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|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_{s}$  | 160 %           | 115 %              |
| Prated  | 6.00 kW         | 4.00 kW            |
| SCOP  | 4.08            | 2.95               |
| Tbiv  | -15 °C          | -15 °C             |
| TOL   | -22 °C          | -22 °C             |
| Pdh Tj = $-7$ °C                                    | 3.58 kW         | 2.40 kW            |
| COP Tj = $-7$ °C                                    | 3.73            | 2.53               |
| Cdh Tj = -7 °C                                      | 0.950           | 0.950              |
| Pdh Tj = $+2$ °C                                    | 2.47 kW         | 2.30 kW            |
| $COP Tj = +2^{\circ}C$                              | 4.50            | 3.53               |
| Cdh Tj = $+2$ °C                                    | 0.920           | 0.930              |
| Pdh Tj = $+7^{\circ}$ C                             | 2.99 kW         | 2.85 kW            |
| $COP Tj = +7^{\circ}C$                              | 7.25            | 5.61               |
| Cdh Tj = $+7$ °C                                    | 0.900           | 0.910              |
| Pdh Tj = 12°C                                       | 3.49 kW         | 3.44 kW            |
| COP Tj = 12°C                                       | 8.45            | 7.55               |
| Cdh Tj = +12 °C                                     | 0.900           | 0.900              |
| Pdh Tj = Tbiv                                       | 4.89 kW         | 3.26 kW            |
| COP Tj = Tbiv                                       | 2.80            | 1.77               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 3.99 kW         | 3.97 kW            |





| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.19        | 1.49        |
|---|-------------|-------------|
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 12 W        | 12 W        |
| РТО   | 46 W        | 46 W        |
| PSB   | 10 W        | 10 W        |
| PCK   | 18 W        | 18 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.01 kW     | 0.03 kW     |
| Annual energy consumption Qhe                       | 3625 kWh    | 3338 kWh    |
| Pdh Tj = -15°C (if TOL<-20°C)                       | 4.94        | 3.32        |
| COP Tj = -15°C (if TOL $<$ -20°C)                   | 2.80        | 1.77        |
| Cdh Tj = -15 °C                                     | 0.980       | 0.980       |

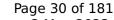
# **Average Climate**

| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |
| Sound power level outdoor | 55 dB(A)        | 55 dB(A)           |



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This information was generated by the HP KEYMARK database on 2 May 2023

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| ης  | 202 %           | 142 %              |
| Prated  | 5.00 kW         | 5.00 kW            |
| SCOP  | 5.12            | 3.63               |
| Tbiv  | -10 °C          | -10 °C             |
| TOL   | -10 °C          | -10 °C             |
| Pdh Tj = $-7^{\circ}$ C                             | 4.41 kW         | 4.46 kW            |
| $COP Tj = -7^{\circ}C$                              | 2.76            | 2.30               |
| Cdh Tj = -7 °C                                      | 0.970           | 0.980              |
| Pdh Tj = $+2$ °C                                    | 2.64 kW         | 2.65 kW            |
| COP Tj = +2°C                                       | 5.44            | 3.58               |
| Cdh Tj = +2 °C                                      | 0.910           | 0.940              |
| Pdh Tj = $+7^{\circ}$ C                             | 2.95 kW         | 2.77 kW            |
| $COPTj = +7^{\circ}C$                               | 7.15            | 4.89               |
| Cdh Tj = $+7$ °C                                    | 0.900           | 0.920              |
| Pdh Tj = 12°C                                       | 3.46 kW         | 3.37 kW            |
| COP Tj = 12°C                                       | 9.55            | 6.92               |
| Cdh Tj = +12 °C                                     | 0.900           | 0.910              |
| Pdh Tj = Tbiv                                       | 5.00 kW         | 5.00 kW            |
| COP Tj = Tbiv                                       | 2.50            | 1.98               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.00 kW         | 5.03 kW            |





| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.50        | 1.98        |
|---|-------------|-------------|
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 12 W        | 12 W        |
| РТО   | 46 W        | 46 W        |
| PSB   | 10 W        | 10 W        |
| PCK   | 18 W        | 18 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.00 kW     |
| Annual energy consumption Qhe                       | 2018 kWh    | 2894 kWh    |

# Domestic Hot Water (DHW)

| EN 16147                        |            |
|---------------------------------|------------|
| Declared load profile           | L          |
| Efficiency ηDHW                 | 161 %      |
| СОР                             | 4.03       |
| Heating up time                 | 1:32 h:min |
| Standby power input             | 28.0 W     |
| Reference hot water temperature | 52.8 °C    |
| Mixed water at 40°C             | 245 I      |



### Colder Climate

| EN 16147                        |            |
|---------------------------------|------------|
| Declared load profile           |            |
|                                 | L          |
| Efficiency ηDHW                 | 113 %      |
| СОР                             | 2.82       |
| Heating up time                 | 1:32 h:min |
| Standby power input             | 36.0 W     |
| Reference hot water temperature | 52.8 °C    |
| Mixed water at 40°C             | 245 I      |

# Average Climate

| EN 16147                        |            |
|---------------------------------|------------|
|                                 |            |
| Declared load profile           | L          |
| Efficiency ηDHW                 | 140 %      |
| СОР                             | 3.51       |
| Heating up time                 | 1:32 h:min |
| Standby power input             | 32.0 W     |
| Reference hot water temperature | 52.8 °C    |
| Mixed water at 40°C             | 245 I      |



# Model: WH-ADC0309K3E5B / WH-UDZ05KE5

| Configure model                     |                                 |  |
|-------------------------------------|---------------------------------|--|
| Model name                          | WH-ADC0309K3E5B / WH-UDZ05KE5   |  |
| Application                         | Heating + DHW + low temp        |  |
| Units                               | Indoor + Outdoor                |  |
| Climate Zone                        | Colder Climate + Warmer Climate |  |
| Reversibility                       | Yes                             |  |
| Cooling mode application (optional) | +7°C/12°C                       |  |

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

# Heating

| EN 14511-2                         |         |         |
|------------------------------------|---------|---------|
| Low temperature Medium temperature |         |         |
| Heat output                        | 5.00 kW | 5.00 kW |
| El input                           | 0.98 kW | 1.65 kW |
| СОР                                | 5.10    | 3.03    |

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

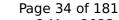
# Cooling





| EN 14511-2       |         |  |
|------------------|---------|--|
| +7°C/+12°C       |         |  |
| El input         | 1.64 kW |  |
| Cooling capacity | 5.00    |  |
| EER              | 3.05    |  |

| EER      | 3.05 |  |  |
|----------|------|--|--|
|          |      |  |  |
| EN 14825 |      |  |  |
|          |      |  |  |
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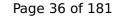


| This information was generated by the Hir KL | +7°C/+12°C |
|--|------------|
| Pdesignc                                     | 5.00 kW    |
| SEER   | 5.72       |
| Pdc Tj = 35°C                                | 5.00 kW    |
| EER Tj = 35°C                                | 3.64       |
| Cdc Tj = 35 °C                               | 1.000      |
| Pdc Tj = 30°C                                | 3.68 kW    |
| EER Tj = 30°C                                | 5.18       |
| Cdc Tj = 30 °C                               | 1.000      |
| Pdc Tj = 25°C                                | 2.37 kW    |
| EER Tj = 25°C                                | 6.47       |
| Cdc Tj = 25 °C                               | 1.000      |
| Pdc Tj = 20°C                                | 1.05 kW    |
| EER Tj = 20°C                                | 8.94       |
| Cdc Tj = 20 °C                               | 1.000      |
| Poff   | 12 W       |
| РТО  | 0 W        |
| PSB  | 12 W       |
| PCK  | 0 W        |
| Annual energy consumption Qce                | 306 kWh    |



| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |
| Sound power level outdoor | 55 dB(A)        | 55 dB(A)           |

| EN 14825        |                 |                    |
|-----------------|-----------------|--------------------|
|                 | Low temperature | Medium temperature |
| $\eta_{s}$      | 237 %           | 165 %              |
| Prated          | 5.00 kW         | 4.00 kW            |
| SCOP            | 6.00            | 4.20               |
| Tbiv            | 2 °C            | 2 °C               |
| TOL             | 2 °C            | 2 °C               |
| Pdh Tj = +2°C   | 5.12 kW         | 4.05 kW            |
| COP Tj = +2°C   | 3.05            | 3.00               |
| Cdh Tj = +2 °C  | 0.970           | 0.970              |
| Pdh Tj = +7°C   | 3.27 kW         | 2.61 kW            |
| COP Tj = +7°C   | 5.75            | 3.63               |
| Cdh Tj = +7 °C  | 0.920           | 0.940              |
| Pdh Tj = 12°C   | 3.45 kW         | 3.32 kW            |
| COP Tj = 12°C   | 8.58            | 6.17               |
| Cdh Tj = +12 °C | 0.900           | 0.920              |





| Pdh Tj = Tbiv                                       | 5.00 kW     | 4.00 kW     |
|---|-------------|-------------|
| COP Tj = Tbiv                                       | 3.89        | 2.46        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.12 kW     | 4.05 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.89        | 2.46        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 12 W        | 12 W        |
| РТО   | 46 W        | 46 W        |
| PSB   | 10 W        | 10 W        |
| PCK   | 18 W        | 18 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.00 kW     |
| Annual energy consumption Qhe                       | 1113 kWh    | 1274 kWh    |

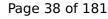
### Colder Climate

| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |
| Sound power level outdoor | 55 dB(A)        | 55 dB(A)           |



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| 160 % 6.00 kW 4.08 -15 °C -22 °C 3.58 kW | 115 % 4.00 kW 2.95 -15 °C -22 °C                                |
|--|---|
| 4.08<br>-15 °C<br>-22 °C                 | 2.95<br>-15 °C  |
| -15 °C<br>-22 °C                         | -15 °C  |
| -22 °C                                   |   |
|  | -22 °C  |
| 3 58 kW                                  |   |
| J.30 KVV                                 | 2.40 kW   |
| 3.73                                     | 2.53  |
| 0.950                                    | 0.950   |
| 2.47 kW                                  | 2.30 kW   |
| 4.50                                     | 3.53  |
| 0.920                                    | 0.930   |
| 2.99 kW                                  | 2.85 kW   |
| 7.25                                     | 5.61  |
| 0.900                                    | 0.910   |
| 3.49 kW                                  | 3.44 kW   |
| 8.45                                     | 7.55  |
| 0.900                                    | 0.900   |
| 4.89 kW                                  | 3.26 kW   |
| 2.80                                     | 1.77  |
| 3.99 kW                                  | 3.97 kW   |
| 3 0 2 4 0 7 0 3 8 0 4 2 1                | .73 .950 .47 kW .50 .920 .99 kW .25 .900 .49 kW .45 .900 .89 kW |





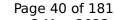
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.19        | 1.49        |
|---|-------------|-------------|
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 12 W        | 12 W        |
| РТО   | 46 W        | 46 W        |
| PSB   | 10 W        | 10 W        |
| PCK   | 18 W        | 18 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.01 kW     | 0.03 kW     |
| Annual energy consumption Qhe                       | 3625 kWh    | 3338 kWh    |
| Pdh Tj = -15°C (if TOL<-20°C)                       | 4.94        | 3.32        |
| COP Tj = -15°C (if TOL<-20°C)                       | 2.80        | 1.77        |
| Cdh Tj = -15 °C                                     | 0.980       | 0.980       |

# Average Climate

| EN 12102-1                |                 |                    |  |
|---------------------------|-----------------|--------------------|--|
|                           | Low temperature | Medium temperature |  |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |  |
| Sound power level outdoor | 55 dB(A)        | 55 dB(A)           |  |



|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| ης  | 202 %           | 142 %              |
| Prated  | 5.00 kW         | 5.00 kW            |
| SCOP  | 5.12            | 3.63               |
| Tbiv  | -10 °C          | -10 °C             |
| TOL   | -10 °C          | -10 °C             |
| Pdh Tj = $-7^{\circ}$ C                             | 4.41 kW         | 4.46 kW            |
| $COP Tj = -7^{\circ}C$                              | 2.76            | 2.30               |
| Cdh Tj = -7 °C                                      | 0.970           | 0.980              |
| Pdh Tj = $+2$ °C                                    | 2.64 kW         | 2.65 kW            |
| COP Tj = +2°C                                       | 5.44            | 3.58               |
| Cdh Tj = +2 °C                                      | 0.910           | 0.940              |
| Pdh Tj = $+7^{\circ}$ C                             | 2.95 kW         | 2.77 kW            |
| $COPTj = +7^{\circ}C$                               | 7.15            | 4.89               |
| Cdh Tj = $+7$ °C                                    | 0.900           | 0.920              |
| Pdh Tj = 12°C                                       | 3.46 kW         | 3.37 kW            |
| COP Tj = 12°C                                       | 9.55            | 6.92               |
| Cdh Tj = +12 °C                                     | 0.900           | 0.910              |
| Pdh Tj = Tbiv                                       | 5.00 kW         | 5.00 kW            |
| COP Tj = Tbiv                                       | 2.50            | 1.98               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.00 kW         | 5.03 kW            |





| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.50        | 1.98        |
|---|-------------|-------------|
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 12 W        | 12 W        |
| РТО   | 46 W        | 46 W        |
| PSB   | 10 W        | 10 W        |
| PCK   | 18 W        | 18 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.00 kW     |
| Annual energy consumption Qhe                       | 2018 kWh    | 2894 kWh    |

# Domestic Hot Water (DHW)

### Warmer Climate

| EN 16147                        |            |
|---------------------------------|------------|
| Declared load profile           | L          |
| Efficiency ηDHW                 | 161 %      |
| СОР                             | 4.03       |
| Heating up time                 | 1:32 h:min |
| Standby power input             | 28.0 W     |
| Reference hot water temperature | 52.8 °C    |
| Mixed water at 40°C             | 245 I      |



## Colder Climate

| EN 16147                        |            |
|---------------------------------|------------|
|                                 |            |
| Declared load profile           | L          |
| Efficiency ηDHW                 | 113 %      |
| СОР                             | 2.82       |
| Heating up time                 | 1:32 h:min |
| Standby power input             | 36.0 W     |
| Reference hot water temperature | 52.8 °C    |
| Mixed water at 40°C             | 245 I      |

# Average Climate

| EN 16147                        |            |  |
|---------------------------------|------------|--|
| Declared load profile           | L          |  |
| Efficiency ηDHW                 | 140 %      |  |
| СОР                             | 3.51       |  |
| Heating up time                 | 1:32 h:min |  |
| Standby power input             | 32.0 W     |  |
| Reference hot water temperature | 52.8 °C    |  |
| Mixed water at 40°C             | 245 I      |  |



# Model: WH-ADC0309K6E5 / WH-UDZ05KE5

| Configure model                     |                                 |  |  |
|-------------------------------------|---------------------------------|--|--|
| Model name                          | WH-ADC0309K6E5 / WH-UDZ05KE5    |  |  |
| Application                         | Heating + DHW + low temp        |  |  |
| Units                               | Indoor + Outdoor                |  |  |
| Climate Zone                        | Colder Climate + Warmer Climate |  |  |
| Reversibility                       | Yes                             |  |  |
| Cooling mode application (optional) | +7°C/12°C                       |  |  |

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

# Heating

| EN 14511-2  |                 |                    |  |
|-------------|-----------------|--------------------|--|
|             | Low temperature | Medium temperature |  |
| Heat output | 5.00 kW         | 5.00 kW            |  |
| El input    | 0.98 kW         | 1.65 kW            |  |
| СОР         | 5.10            | 3.03               |  |

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

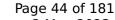
# Cooling





| EN 14511-2       |            |
|------------------|------------|
|                  | +7°C/+12°C |
| El input         | 1.64 kW    |
| Cooling capacity | 5.00       |
| EER              | 3.05       |

#### EN 14825





| This information was generated by the Hir KL | +7°C/+12°C |
|--|------------|
| Pdesignc                                     | 5.00 kW    |
| SEER   | 5.72       |
| Pdc Tj = 35°C                                | 5.00 kW    |
| EER Tj = 35°C                                | 3.64       |
| Cdc Tj = 35 °C                               | 1.000      |
| Pdc Tj = 30°C                                | 3.68 kW    |
| EER Tj = 30°C                                | 5.18       |
| Cdc Tj = 30 °C                               | 1.000      |
| Pdc Tj = 25°C                                | 2.37 kW    |
| EER Tj = 25°C                                | 6.47       |
| Cdc Tj = 25 °C                               | 1.000      |
| Pdc Tj = 20°C                                | 1.05 kW    |
| EER Tj = 20°C                                | 8.94       |
| Cdc Tj = 20 °C                               | 1.000      |
| Poff   | 12 W       |
| РТО  | 0 W        |
| PSB  | 12 W       |
| PCK  | 0 W        |
| Annual energy consumption Qce                | 306 kWh    |

# Warmer Climate



| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |
| Sound power level outdoor | 55 dB(A)        | 55 dB(A)           |

| EN 14825        |                 |                    |
|-----------------|-----------------|--------------------|
|                 | Low temperature | Medium temperature |
| $\eta_{s}$      | 237 %           | 165 %              |
| Prated          | 5.00 kW         | 4.00 kW            |
| SCOP            | 6.00            | 4.20               |
| Tbiv            | 2 °C            | 2 °C               |
| TOL             | 2 °C            | 2 °C               |
| Pdh Tj = +2°C   | 5.12 kW         | 4.05 kW            |
| COP Tj = +2°C   | 3.05            | 3.00               |
| Cdh Tj = +2 °C  | 0.970           | 0.970              |
| Pdh Tj = +7°C   | 3.27 kW         | 2.61 kW            |
| COP Tj = +7°C   | 5.75            | 3.63               |
| Cdh Tj = +7 °C  | 0.920           | 0.940              |
| Pdh Tj = 12°C   | 3.45 kW         | 3.32 kW            |
| COP Tj = 12°C   | 8.58            | 6.17               |
| Cdh Tj = +12 °C | 0.900           | 0.920              |





| Pdh Tj = Tbiv                                       | 5.00 kW     | 4.00 kW     |
|---|-------------|-------------|
| COP Tj = Tbiv                                       | 3.89        | 2.46        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.12 kW     | 4.05 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.89        | 2.46        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 12 W        | 12 W        |
| РТО   | 46 W        | 46 W        |
| PSB   | 10 W        | 10 W        |
| PCK   | 18 W        | 18 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.00 kW     |
| Annual energy consumption Qhe                       | 1113 kWh    | 1274 kWh    |

## Colder Climate

| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |
| Sound power level outdoor | 55 dB(A)        | 55 dB(A)           |



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|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_{S}$  | 160 %           | 115 %              |
| Prated  | 6.00 kW         | 4.00 kW            |
| SCOP  | 4.08            | 2.95               |
| Tbiv  | -15 °C          | -15 °C             |
| TOL   | -22 °C          | -22 °C             |
| Pdh Tj = $-7$ °C                                    | 3.58 kW         | 2.40 kW            |
| COP Tj = $-7^{\circ}$ C                             | 3.73            | 2.53               |
| Cdh Tj = -7 °C                                      | 0.950           | 0.950              |
| Pdh Tj = $+2$ °C                                    | 2.47 kW         | 2.30 kW            |
| $COPTj = +2^{\circ}C$                               | 4.50            | 3.53               |
| Cdh Tj = $+2$ °C                                    | 0.920           | 0.930              |
| Pdh Tj = $+7^{\circ}$ C                             | 2.99 kW         | 2.85 kW            |
| $COPTj = +7^{\circ}C$                               | 7.25            | 5.61               |
| Cdh Tj = $+7$ °C                                    | 0.900           | 0.910              |
| Pdh Tj = 12°C                                       | 3.49 kW         | 3.44 kW            |
| COP Tj = 12°C                                       | 8.45            | 7.55               |
| Cdh Tj = +12 °C                                     | 0.900           | 0.900              |
| Pdh Tj = Tbiv                                       | 4.89 kW         | 3.26 kW            |
| COP Tj = Tbiv                                       | 2.80            | 1.77               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 3.99 kW         | 3.97 kW            |





| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.19        | 1.49        |
|---|-------------|-------------|
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 12 W        | 12 W        |
| РТО   | 46 W        | 46 W        |
| PSB   | 10 W        | 10 W        |
| PCK   | 18 W        | 18 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.01 kW     | 0.03 kW     |
| Annual energy consumption Qhe                       | 3625 kWh    | 3338 kWh    |
| Pdh Tj = -15°C (if TOL<-20°C)                       | 4.94        | 3.32        |
| COP Tj = -15°C (if TOL<-20°C)                       | 2.80        | 1.77        |
| Cdh Tj = -15 °C                                     | 0.980       | 0.980       |

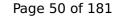
# Average Climate

| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |
| Sound power level outdoor | 55 dB(A)        | 55 dB(A)           |



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|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| ης  | 202 %           | 142 %              |
| Prated  | 5.00 kW         | 5.00 kW            |
| SCOP  | 5.12            | 3.63               |
| Tbiv  | -10 °C          | -10 °C             |
| TOL   | -10 °C          | -10 °C             |
| Pdh Tj = $-7^{\circ}$ C                             | 4.41 kW         | 4.46 kW            |
| $COP Tj = -7^{\circ}C$                              | 2.76            | 2.30               |
| Cdh Tj = -7 °C                                      | 0.970           | 0.980              |
| Pdh Tj = $+2$ °C                                    | 2.64 kW         | 2.65 kW            |
| COP Tj = +2°C                                       | 5.44            | 3.58               |
| Cdh Tj = +2 °C                                      | 0.910           | 0.940              |
| Pdh Tj = $+7^{\circ}$ C                             | 2.95 kW         | 2.77 kW            |
| $COPTj = +7^{\circ}C$                               | 7.15            | 4.89               |
| Cdh Tj = $+7$ °C                                    | 0.900           | 0.920              |
| Pdh Tj = 12°C                                       | 3.46 kW         | 3.37 kW            |
| COP Tj = 12°C                                       | 9.55            | 6.92               |
| Cdh Tj = +12 °C                                     | 0.900           | 0.910              |
| Pdh Tj = Tbiv                                       | 5.00 kW         | 5.00 kW            |
| COP Tj = Tbiv                                       | 2.50            | 1.98               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.00 kW         | 5.03 kW            |





| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.50        | 1.98        |
|---|-------------|-------------|
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 12 W        | 12 W        |
| РТО   | 46 W        | 46 W        |
| PSB   | 10 W        | 10 W        |
| PCK   | 18 W        | 18 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.00 kW     |
| Annual energy consumption Qhe                       | 2018 kWh    | 2894 kWh    |

# Domestic Hot Water (DHW)

### Warmer Climate

| EN 16147                        |            |
|---------------------------------|------------|
| Declared load profile           | L          |
| Efficiency ηDHW                 | 161 %      |
| СОР                             | 4.03       |
| Heating up time                 | 1:32 h:min |
| Standby power input             | 28.0 W     |
| Reference hot water temperature | 52.8 °C    |
| Mixed water at 40°C             | 245 I      |



## Colder Climate

| EN 16147                        |            |
|---------------------------------|------------|
| Declared load profile           |            |
|                                 | L          |
| Efficiency ηDHW                 | 113 %      |
| СОР                             | 2.82       |
| Heating up time                 | 1:32 h:min |
| Standby power input             | 36.0 W     |
| Reference hot water temperature | 52.8 °C    |
| Mixed water at 40°C             | 245 I      |

# Average Climate

| EN 16147                        |            |
|---------------------------------|------------|
|                                 |            |
| Declared load profile           | L          |
| Efficiency ηDHW                 | 140 %      |
| СОР                             | 3.51       |
| Heating up time                 | 1:32 h:min |
| Standby power input             | 32.0 W     |
| Reference hot water temperature | 52.8 °C    |
| Mixed water at 40°C             | 245 I      |

# Model: WH-ADC0309K6E5AN / WH-UDZ05KE5

| Configure model                           |                                 |  |
|---|---------------------------------|--|
| Model name WH-ADC0309K6E5AN / WH-UDZ05KE5 |                                 |  |
| Application                               | Heating + DHW + low temp        |  |
| Units                                     | Indoor + Outdoor                |  |
| Climate Zone                              | Colder Climate + Warmer Climate |  |
| Reversibility                             | Yes                             |  |
| Cooling mode application (optional)       | +7°C/12°C                       |  |

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

# Heating

| EN 14511-2                         |         |         |  |
|------------------------------------|---------|---------|--|
| Low temperature Medium temperature |         |         |  |
| Heat output                        | 5.00 kW | 5.00 kW |  |
| El input                           | 0.98 kW | 1.65 kW |  |
| СОР                                | 5.10    | 3.03    |  |

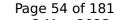
| EN 14511-4                                 |        |
|--|--------|
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure              | passed |
| Defrost test                               | passed |
| Starting and operating test                | passed |

# Cooling





| EN 14511-2       |         |  |
|------------------|---------|--|
| +7°C/+12°C       |         |  |
| El input         | 1.64 kW |  |
| Cooling capacity | 5.00    |  |
| EER              | 3.05    |  |





|                               | +7°C/+12°C |
|-------------------------------|------------|
| Pdesignc                      | 5.00 kW    |
| SEER                          | 5.72       |
| Pdc Tj = 35°C                 | 5.00 kW    |
| EER Tj = 35°C                 | 3.64       |
| Cdc Tj = 35 °C                | 1.000      |
| Pdc Tj = 30°C                 | 3.68 kW    |
| EER Tj = 30°C                 | 5.18       |
| Cdc Tj = 30 °C                | 1.000      |
| Pdc Tj = 25°C                 | 2.37 kW    |
| EER Tj = 25°C                 | 6.47       |
| Cdc Tj = 25 °C                | 1.000      |
| Pdc Tj = 20°C                 | 1.05 kW    |
| EER Tj = 20°C                 | 8.94       |
| Cdc Tj = 20 °C                | 1.000      |
| Poff                          | 12 W       |
| РТО                           | 0 W        |
| PSB                           | 12 W       |
| PCK                           | o w        |
| Annual energy consumption Qce | 306 kWh    |

# Warmer Climate



| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |
| Sound power level outdoor | 55 dB(A)        | 55 dB(A)           |

| EN 14825                |                 |                    |
|-------------------------|-----------------|--------------------|
|                         | Low temperature | Medium temperature |
| $\eta_{s}$              | 237 %           | 165 %              |
| Prated                  | 5.00 kW         | 4.00 kW            |
| SCOP                    | 6.00            | 4.20               |
| Tbiv                    | 2 °C            | 2 °C               |
| TOL                     | 2 °C            | 2 °C               |
| Pdh Tj = +2°C           | 5.12 kW         | 4.05 kW            |
| COP Tj = +2°C           | 3.05            | 3.00               |
| Cdh Tj = +2 °C          | 0.970           | 0.970              |
| Pdh Tj = $+7^{\circ}$ C | 3.27 kW         | 2.61 kW            |
| $COP Tj = +7^{\circ}C$  | 5.75            | 3.63               |
| Cdh Tj = +7 °C          | 0.920           | 0.940              |
| Pdh Tj = 12°C           | 3.45 kW         | 3.32 kW            |
| COP Tj = 12°C           | 8.58            | 6.17               |
| Cdh Tj = +12 °C         | 0.900           | 0.920              |





| · · · · · · · · · · · · · · · · · · · |   |
|---------------------------------------|---|
| 5.00 kW                               | 4.00 kW   |
| 3.89                                  | 2.46  |
| 5.12 kW                               | 4.05 kW   |
| 3.89                                  | 2.46  |
| 0.900                                 | 0.900   |
| 55 °C                                 | 55 °C   |
| 12 W                                  | 12 W  |
| 46 W                                  | 46 W  |
| 10 W                                  | 10 W  |
| 18 W                                  | 18 W  |
| Electricity                           | Electricity   |
| 0.00 kW                               | 0.00 kW   |
| 1113 kWh                              | 1274 kWh  |
|                                       | 3.89 5.12 kW 3.89 0.900 55 °C 12 W 46 W 10 W 18 W Electricity 0.00 kW |

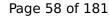
## Colder Climate

| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |
| Sound power level outdoor | 55 dB(A)        | 55 dB(A)           |



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| 160 % 6.00 kW 4.08 -15 °C -22 °C 3.58 kW | 115 % 4.00 kW 2.95 -15 °C -22 °C                                |
|--|---|
| 4.08<br>-15 °C<br>-22 °C                 | 2.95<br>-15 °C  |
| -15 °C<br>-22 °C                         | -15 °C  |
| -22 °C                                   |   |
|  | -22 °C  |
| 3 58 kW                                  |   |
| J.30 KVV                                 | 2.40 kW   |
| 3.73                                     | 2.53  |
| 0.950                                    | 0.950   |
| 2.47 kW                                  | 2.30 kW   |
| 4.50                                     | 3.53  |
| 0.920                                    | 0.930   |
| 2.99 kW                                  | 2.85 kW   |
| 7.25                                     | 5.61  |
| 0.900                                    | 0.910   |
| 3.49 kW                                  | 3.44 kW   |
| 8.45                                     | 7.55  |
| 0.900                                    | 0.900   |
| 4.89 kW                                  | 3.26 kW   |
| 2.80                                     | 1.77  |
| 3.99 kW                                  | 3.97 kW   |
| 3 0 2 4 0 7 0 3 8 0 4 2 1                | .73 .950 .47 kW .50 .920 .99 kW .25 .900 .49 kW .45 .900 .89 kW |





| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.19        | 1.49        |
|---|-------------|-------------|
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 12 W        | 12 W        |
| РТО   | 46 W        | 46 W        |
| PSB   | 10 W        | 10 W        |
| PCK   | 18 W        | 18 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.01 kW     | 0.03 kW     |
| Annual energy consumption Qhe                       | 3625 kWh    | 3338 kWh    |
| Pdh Tj = -15°C (if TOL<-20°C)                       | 4.94        | 3.32        |
| COP Tj = -15°C (if TOL<-20°C)                       | 2.80        | 1.77        |
| Cdh Tj = -15 °C                                     | 0.980       | 0.980       |

# Average Climate

| EN 12102-1                |                 |                    |  |
|---------------------------|-----------------|--------------------|--|
|                           | Low temperature | Medium temperature |  |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |  |
| Sound power level outdoor | 55 dB(A)        | 55 dB(A)           |  |



Page 59 of 181 This information was generated by the HP KEYMARK database on 2 May 2023

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_{s}$  | 202 %           | 142 %              |
| Prated  | 5.00 kW         | 5.00 kW            |
| SCOP  | 5.12            | 3.63               |
| Tbiv  | -10 °C          | -10 °C             |
| TOL   | -10 °C          | -10 °C             |
| Pdh Tj = $-7^{\circ}$ C                             | 4.41 kW         | 4.46 kW            |
| COP Tj = $-7$ °C                                    | 2.76            | 2.30               |
| Cdh Tj = -7 °C                                      | 0.970           | 0.980              |
| Pdh Tj = +2°C                                       | 2.64 kW         | 2.65 kW            |
| COP Tj = +2°C                                       | 5.44            | 3.58               |
| Cdh Tj = +2 °C                                      | 0.910           | 0.940              |
| Pdh Tj = +7°C                                       | 2.95 kW         | 2.77 kW            |
| $COP Tj = +7^{\circ}C$                              | 7.15            | 4.89               |
| Cdh Tj = +7 °C                                      | 0.900           | 0.920              |
| Pdh Tj = 12°C                                       | 3.46 kW         | 3.37 kW            |
| COP Tj = 12°C                                       | 9.55            | 6.92               |
| Cdh Tj = +12 °C                                     | 0.900           | 0.910              |
| Pdh Tj = Tbiv                                       | 5.00 kW         | 5.00 kW            |
| COP Tj = Tbiv                                       | 2.50            | 1.98               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.00 kW         | 5.03 kW            |





| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.50        | 1.98        |
|---|-------------|-------------|
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 12 W        | 12 W        |
| РТО   | 46 W        | 46 W        |
| PSB   | 10 W        | 10 W        |
| PCK   | 18 W        | 18 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.00 kW     |
| Annual energy consumption Qhe                       | 2018 kWh    | 2894 kWh    |

# Domestic Hot Water (DHW)

### Warmer Climate

| EN 16147                        |            |
|---------------------------------|------------|
| Declared load profile           | L          |
| Efficiency ηDHW                 | 161 %      |
| СОР                             | 4.03       |
| Heating up time                 | 1:32 h:min |
| Standby power input             | 28.0 W     |
| Reference hot water temperature | 52.8 °C    |
| Mixed water at 40°C             | 245 I      |



## Colder Climate

| EN 16147                        |            |
|---------------------------------|------------|
| Declared load profile           |            |
|                                 | L          |
| Efficiency ηDHW                 | 113 %      |
| СОР                             | 2.82       |
| Heating up time                 | 1:32 h:min |
| Standby power input             | 36.0 W     |
| Reference hot water temperature | 52.8 °C    |
| Mixed water at 40°C             | 245 I      |

# Average Climate

| EN 16147                        |            |
|---------------------------------|------------|
|                                 |            |
| Declared load profile           | L          |
| Efficiency ηDHW                 | 140 %      |
| СОР                             | 3.51       |
| Heating up time                 | 1:32 h:min |
| Standby power input             | 32.0 W     |
| Reference hot water temperature | 52.8 °C    |
| Mixed water at 40°C             | 245 I      |



# Model: WH-ADC0309K3E5 / WH-UDZ07KE5

| Configure model                     |                                 |  |
|-------------------------------------|---------------------------------|--|
| Model name                          | WH-ADC0309K3E5 / WH-UDZ07KE5    |  |
| Application                         | Heating + DHW + low temp        |  |
| Units                               | Indoor + Outdoor                |  |
| Climate Zone                        | Colder Climate + Warmer Climate |  |
| Reversibility                       | Yes                             |  |
| Cooling mode application (optional) | +7°C/12°C                       |  |

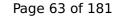
|              | General Data |  |
|--------------|--------------|--|
| Power supply | 1x230V 50Hz  |  |

# Heating

| EN 14511-2  |                 |                    |  |
|-------------|-----------------|--------------------|--|
|             | Low temperature | Medium temperature |  |
| Heat output | 7.00 kW         | 7.00 kW            |  |
| El input    | 1.44 kW         | 2.40 kW            |  |
| СОР         | 4.86            | 2.92               |  |

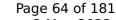
| EN 14511-4                                 |        |  |
|--|--------|--|
| Shutting off the heat transfer medium flow | passed |  |
| Complete power supply failure              | passed |  |
| Defrost test                               | passed |  |
| Starting and operating test                | passed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

# Cooling





| EN 14511-2       |            |
|------------------|------------|
|                  | +7°C/+12°C |
| El input         | 2.21 kW    |
| Cooling capacity | 6.70       |
| EER              | 3.03       |





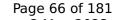
|                               | +7°C/+12°C |
|-------------------------------|------------|
| Pdesignc                      | 6.00 kW    |
| SEER                          | 5.43       |
| Pdc Tj = 35°C                 | 6.00 kW    |
| EER Tj = 35°C                 | 3.13       |
| Cdc Tj = 35 °C                | 1.000      |
| Pdc Tj = 30°C                 | 4.42 kW    |
| EER Tj = 30°C                 | 4.35       |
| Cdc Tj = 30 °C                | 1.000      |
| Pdc Tj = 25°C                 | 2.84 kW    |
| EER Tj = 25°C                 | 6.52       |
| Cdc Tj = 25 °C                | 1.000      |
| Pdc Tj = 20°C                 | 1.26 kW    |
| EER Tj = 20°C                 | 8.73       |
| Cdc Tj = 20 °C                | 1.000      |
| Poff                          | 12 W       |
| РТО                           | 0 W        |
| PSB                           | 12 W       |
| PCK                           | o w        |
| Annual energy consumption Qce | 386 kWh    |

# Warmer Climate



| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

| EN 14825        |                 |                    |
|-----------------|-----------------|--------------------|
|                 | Low temperature | Medium temperature |
| $\eta_{s}$      | 227 %           | 160 %              |
| Prated          | 7.00 kW         | 6.00 kW            |
| SCOP            | 5.75            | 4.07               |
| Tbiv            | 2 °C            | 2 °C               |
| TOL             | 2 °C            | 2 °C               |
| Pdh Tj = +2°C   | 7.07 kW         | 6.10 kW            |
| COP Tj = +2°C   | 2.80            | 2.14               |
| Cdh Tj = +2 °C  | 0.980           | 0.980              |
| Pdh Tj = +7°C   | 4.51 kW         | 3.80 kW            |
| COP Tj = +7°C   | 5.37            | 3.51               |
| Cdh Tj = +7 °C  | 0.950           | 0.960              |
| Pdh Tj = 12°C   | 3.45 kW         | 3.25 kW            |
| COP Tj = 12°C   | 7.77            | 5.80               |
| Cdh Tj = +12 °C | 0.900           | 0.920              |





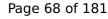
| <u> </u>    |   |
|-------------|---|
| 7.00 kW     | 6.00 kW   |
| 2.80        | 2.14  |
| 7.07 kW     | 6.10 kW   |
| 2.80        | 2.14  |
| 0.900       | 0.900   |
| 55 °C       | 55 °C   |
| 12 W        | 12 W  |
| 46 W        | 46 W  |
| 10 W        | 10 W  |
| 18 W        | 18 W  |
| Electricity | Electricity   |
| 0.00 kW     | 0.00 kW   |
| 1627 kWh    | 1971 kWh  |
|             | 2.80 7.07 kW 2.80 0.900 55 °C 12 W 46 W 10 W 18 W Electricity 0.00 kW |

## Colder Climate

| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |



|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_{s}$  | 164 %           | 116 %              |
| Prated  | 7.00 kW         | 6.00 kW            |
| SCOP  | 4.18            | 2.98               |
| Tbiv  | -15 °C          | -15 °C             |
| TOL   | -22 °C          | -22 °C             |
| Pdh Tj = $-7^{\circ}$ C                             | 4.17 kW         | 3.64 kW            |
| $COP Tj = -7^{\circ}C$                              | 3.41            | 2.41               |
| Cdh Tj = -7 °C                                      | 0.960           | 0.970              |
| Pdh Tj = $+2$ °C                                    | 2.54 kW         | 2.25 kW            |
| COP Tj = +2°C                                       | 5.39            | 3.75               |
| Cdh Tj = +2 °C                                      | 0.900           | 0.920              |
| Pdh Tj = $+7^{\circ}$ C                             | 2.96 kW         | 2.81 kW            |
| $COPTj = +7^{\circ}C$                               | 6.69            | 5.01               |
| Cdh Tj = $+7$ °C                                    | 0.900           | 0.920              |
| Pdh Tj = 12°C                                       | 3.40 kW         | 3.33 kW            |
| COP Tj = 12°C                                       | 8.24            | 6.67               |
| Cdh Tj = +12 °C                                     | 0.900           | 0.910              |
| Pdh Tj = Tbiv                                       | 5.71 kW         | 4.89 kW            |
| COP Tj = Tbiv                                       | 2.44            | 1.72               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 4.72 kW         | 3.74 kW            |





| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 1.82        | 1.08        |
|---|-------------|-------------|
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 12 W        | 12 W        |
| РТО   | 46 W        | 46 W        |
| PSB   | 10 W        | 10 W        |
| PCK   | 18 W        | 18 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.28 kW     | 2.26 kW     |
| Annual energy consumption Qhe                       | 4132 kWh    | 4967 kWh    |
| Pdh Tj = -15°C (if TOL<-20°C)                       | 5.72        | 4.86        |
| COP Tj = -15°C (if TOL $<$ -20°C)                   | 2.44        | 1.72        |
| Cdh Tj = -15 °C                                     | 0.980       | 0.980       |

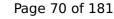
# Average Climate

| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |



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|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_{S}$  | 193 %           | 142 %              |
| Prated  | 7.00 kW         | 7.00 kW            |
| SCOP  | 4.90            | 3.62               |
| Tbiv  | -10 °C          | -7 °C              |
| TOL   | -10 °C          | -10 °C             |
| Pdh Tj = $-7$ °C                                    | 6.25 kW         | 6.23 kW            |
| COP Tj = $-7$ °C                                    | 2.80            | 2.18               |
| Cdh Tj = -7 °C                                      | 0.980           | 0.980              |
| Pdh Tj = $+2$ °C                                    | 3.78 kW         | 3.82 kW            |
| $COPTj = +2^{\circ}C$                               | 5.03            | 3.69               |
| Cdh Tj = $+2$ °C                                    | 0.940           | 0.960              |
| Pdh Tj = $+7$ °C                                    | 2.95 kW         | 2.50 kW            |
| $COPTj = +7^{\circ}C$                               | 6.56            | 4.50               |
| Cdh Tj = $+7$ °C                                    | 0.900           | 0.920              |
| Pdh Tj = 12°C                                       | 3.44 kW         | 3.10 kW            |
| COP Tj = 12°C                                       | 8.47            | 6.55               |
| Cdh Tj = +12 °C                                     | 0.900           | 0.900              |
| Pdh Tj = Tbiv                                       | 7.00 kW         | 6.19 kW            |
| COP Tj = Tbiv                                       | 2.60            | 2.18               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.00 kW         | 6.18 kW            |





| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.60        | 1.84        |
|---|-------------|-------------|
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 12 W        | 12 W        |
| PTO   | 46 W        | 46 W        |
| PSB   | 10 W        | 10 W        |
| PCK   | 18 W        | 18 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.82 kW     |
| Annual energy consumption Qhe                       | 2949 kWh    | 3999 kWh    |

# Domestic Hot Water (DHW)

### Warmer Climate

| EN 16147                        |            |
|---------------------------------|------------|
| Declared load profile           | L          |
| Efficiency ηDHW                 | 161 %      |
| СОР                             | 4.03       |
| Heating up time                 | 1:06 h:min |
| Standby power input             | 28.0 W     |
| Reference hot water temperature | 52.8 °C    |
| Mixed water at 40°C             | 245 I      |



## Colder Climate

| EN 16147                        |            |  |  |
|---------------------------------|------------|--|--|
| Designed lead outfile           |            |  |  |
| Declared load profile           | L          |  |  |
| Efficiency ηDHW                 | 113 %      |  |  |
| СОР                             | 2.82       |  |  |
| Heating up time                 | 1:06 h:min |  |  |
| Standby power input             | 36.0 W     |  |  |
| Reference hot water temperature | 52.8 °C    |  |  |
| Mixed water at 40°C             | 245 I      |  |  |

# Average Climate

| EN 16147                        |            |  |  |
|---------------------------------|------------|--|--|
|                                 |            |  |  |
| Declared load profile           | L          |  |  |
| Efficiency ηDHW                 | 140 %      |  |  |
| СОР                             | 3.51       |  |  |
| Heating up time                 | 1:06 h:min |  |  |
| Standby power input             | 32.0 W     |  |  |
| Reference hot water temperature | 52.8 °C    |  |  |
| Mixed water at 40°C             | 245 I      |  |  |



# Model: WH-ADC0309K3E5UK / WH-UDZ07KE5

| Configure model                     |                                 |  |  |
|-------------------------------------|---------------------------------|--|--|
| Model name                          | WH-ADC0309K3E5UK / WH-UDZ07KE5  |  |  |
| Application                         | Heating + DHW + low temp        |  |  |
| Units                               | Indoor + Outdoor                |  |  |
| Climate Zone                        | Colder Climate + Warmer Climate |  |  |
| Reversibility                       | Yes                             |  |  |
| Cooling mode application (optional) | +7°C/12°C                       |  |  |

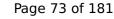
| General Data |             |  |
|--------------|-------------|--|
| Power supply | 1x230V 50Hz |  |

# Heating

| EN 14511-2  |                 |                    |  |
|-------------|-----------------|--------------------|--|
|             | Low temperature | Medium temperature |  |
| Heat output | 7.00 kW         | 7.00 kW            |  |
| El input    | 1.44 kW         | 2.40 kW            |  |
| СОР         | 4.86            | 2.92               |  |

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

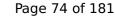
# Cooling





| EN 14511-2       |         |
|------------------|---------|
| +7°C/+12°C       |         |
| El input         | 2.21 kW |
| Cooling capacity | 6.70    |
| EER              | 3.03    |

## EN 14825





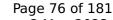
|                               | +7°C/+12°C |
|-------------------------------|------------|
| Pdesignc                      | 6.00 kW    |
| SEER                          | 5.43       |
| Pdc Tj = 35°C                 | 6.00 kW    |
| EER Tj = 35°C                 | 3.13       |
| Cdc Tj = 35 °C                | 1.000      |
| Pdc Tj = 30°C                 | 4.42 kW    |
| EER Tj = 30°C                 | 4.35       |
| Cdc Tj = 30 °C                | 1.000      |
| Pdc Tj = 25°C                 | 2.84 kW    |
| EER Tj = 25°C                 | 6.52       |
| Cdc Tj = 25 °C                | 1.000      |
| Pdc Tj = 20°C                 | 1.26 kW    |
| EER Tj = 20°C                 | 8.73       |
| Cdc Tj = 20 °C                | 1.000      |
| Poff                          | 12 W       |
| РТО                           | 0 W        |
| PSB                           | 12 W       |
| PCK                           | o w        |
| Annual energy consumption Qce | 386 kWh    |

# Warmer Climate



| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

| EN 14825        |                 |                    |
|-----------------|-----------------|--------------------|
|                 | Low temperature | Medium temperature |
| $\eta_{s}$      | 227 %           | 160 %              |
| Prated          | 7.00 kW         | 6.00 kW            |
| SCOP            | 5.75            | 4.07               |
| Tbiv            | 2 °C            | 2 °C               |
| TOL             | 2 °C            | 2 °C               |
| Pdh Tj = +2°C   | 7.07 kW         | 6.10 kW            |
| COP Tj = +2°C   | 2.80            | 2.14               |
| Cdh Tj = +2 °C  | 0.980           | 0.980              |
| Pdh Tj = +7°C   | 4.51 kW         | 3.80 kW            |
| COP Tj = +7°C   | 5.37            | 3.51               |
| Cdh Tj = +7 °C  | 0.950           | 0.960              |
| Pdh Tj = 12°C   | 3.45 kW         | 3.25 kW            |
| COP Tj = 12°C   | 7.77            | 5.80               |
| Cdh Tj = +12 °C | 0.900           | 0.920              |





| Pdh Tj = Tbiv                                       | 7.00 kW     | 6.00 kW     |
|---|-------------|-------------|
| COP Tj = Tbiv                                       | 2.80        | 2.14        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.07 kW     | 6.10 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.80        | 2.14        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 12 W        | 12 W        |
| РТО   | 46 W        | 46 W        |
| PSB   | 10 W        | 10 W        |
| PCK   | 18 W        | 18 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.00 kW     |
| Annual energy consumption Qhe                       | 1627 kWh    | 1971 kWh    |

## Colder Climate

| EN 12102-1                |                 |                    |  |
|---------------------------|-----------------|--------------------|--|
|                           | Low temperature | Medium temperature |  |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |  |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |  |



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|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_{s}$  | 164 %           | 116 %              |
| Prated  | 7.00 kW         | 6.00 kW            |
| SCOP  | 4.18            | 2.98               |
| Tbiv  | -15 °C          | -15 °C             |
| TOL   | -22 °C          | -22 °C             |
| Pdh Tj = $-7$ °C                                    | 4.17 kW         | 3.64 kW            |
| COP Tj = $-7$ °C                                    | 3.41            | 2.41               |
| Cdh Tj = -7 °C                                      | 0.960           | 0.970              |
| Pdh $Tj = +2$ °C                                    | 2.54 kW         | 2.25 kW            |
| $COP Tj = +2^{\circ}C$                              | 5.39            | 3.75               |
| Cdh Tj = $+2$ °C                                    | 0.900           | 0.920              |
| Pdh Tj = $+7^{\circ}$ C                             | 2.96 kW         | 2.81 kW            |
| $COP Tj = +7^{\circ}C$                              | 6.69            | 5.01               |
| Cdh Tj = $+7$ °C                                    | 0.900           | 0.920              |
| Pdh Tj = 12°C                                       | 3.40 kW         | 3.33 kW            |
| COP Tj = 12°C                                       | 8.24            | 6.67               |
| Cdh Tj = +12 °C                                     | 0.900           | 0.910              |
| Pdh Tj = Tbiv                                       | 5.71 kW         | 4.89 kW            |
| COP Tj = Tbiv                                       | 2.44            | 1.72               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 4.72 kW         | 3.74 kW            |





| 1.82        | 1.08   |
|-------------|--|
| 0.900       | 0.900  |
| 55 °C       | 55 °C  |
| 12 W        | 12 W   |
| 46 W        | 46 W   |
| 10 W        | 10 W   |
| 18 W        | 18 W   |
| Electricity | Electricity  |
| 2.28 kW     | 2.26 kW  |
| 4132 kWh    | 4967 kWh   |
| 5.72        | 4.86   |
| 2.44        | 1.72   |
| 0.980       | 0.980  |
|             | 0.900 55 °C 12 W 46 W 10 W 18 W Electricity 2.28 kW 4132 kWh 5.72 2.44 |

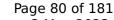
# **Average Climate**

| EN 12102-1                |                 |                    |  |
|---------------------------|-----------------|--------------------|--|
|                           | Low temperature | Medium temperature |  |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |  |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |  |



Page 79 of 181 This information was generated by the HP KEYMARK database on 2 May 2023

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_{s}$  | 193 %           | 142 %              |
| Prated  | 7.00 kW         | 7.00 kW            |
| SCOP  | 4.90            | 3.62               |
| Tbiv  | -10 °C          | -7 °C              |
| TOL   | -10 °C          | -10 °C             |
| Pdh Tj = $-7^{\circ}$ C                             | 6.25 kW         | 6.23 kW            |
| $COP Tj = -7^{\circ}C$                              | 2.80            | 2.18               |
| Cdh Tj = -7 °C                                      | 0.980           | 0.980              |
| Pdh Tj = $+2$ °C                                    | 3.78 kW         | 3.82 kW            |
| COP Tj = +2°C                                       | 5.03            | 3.69               |
| Cdh Tj = +2 °C                                      | 0.940           | 0.960              |
| Pdh Tj = $+7^{\circ}$ C                             | 2.95 kW         | 2.50 kW            |
| $COPTj = +7^{\circ}C$                               | 6.56            | 4.50               |
| Cdh Tj = $+7$ °C                                    | 0.900           | 0.920              |
| Pdh Tj = 12°C                                       | 3.44 kW         | 3.10 kW            |
| COP Tj = 12°C                                       | 8.47            | 6.55               |
| Cdh Tj = +12 °C                                     | 0.900           | 0.900              |
| Pdh Tj = Tbiv                                       | 7.00 kW         | 6.19 kW            |
| COP Tj = Tbiv                                       | 2.60            | 2.18               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.00 kW         | 6.18 kW            |





| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.60        | 1.84        |
|---|-------------|-------------|
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 12 W        | 12 W        |
| PTO   | 46 W        | 46 W        |
| PSB   | 10 W        | 10 W        |
| PCK   | 18 W        | 18 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.82 kW     |
| Annual energy consumption Qhe                       | 2949 kWh    | 3999 kWh    |

# Domestic Hot Water (DHW)

## Warmer Climate

| EN 16147                        |            |
|---------------------------------|------------|
| Declared load profile           | L          |
| Efficiency ηDHW                 | 161 %      |
| СОР                             | 4.03       |
| Heating up time                 | 1:06 h:min |
| Standby power input             | 28.0 W     |
| Reference hot water temperature | 52.8 °C    |
| Mixed water at 40°C             | 245 I      |



## Colder Climate

| EN 16147                        |            |  |
|---------------------------------|------------|--|
| Designed lead outfile           |            |  |
| Declared load profile           | L          |  |
| Efficiency ηDHW                 | 113 %      |  |
| СОР                             | 2.82       |  |
| Heating up time                 | 1:06 h:min |  |
| Standby power input             | 36.0 W     |  |
| Reference hot water temperature | 52.8 °C    |  |
| Mixed water at 40°C             | 245 I      |  |

# Average Climate

| EN 16147                        |            |  |
|---------------------------------|------------|--|
|                                 |            |  |
| Declared load profile           | L          |  |
| Efficiency ηDHW                 | 140 %      |  |
| СОР                             | 3.51       |  |
| Heating up time                 | 1:06 h:min |  |
| Standby power input             | 32.0 W     |  |
| Reference hot water temperature | 52.8 °C    |  |
| Mixed water at 40°C             | 245 I      |  |



# Model: WH-ADC0309K3E5AN / WH-UDZ07KE5

| Configure model                           |                                 |  |  |
|---|---------------------------------|--|--|
| Model name WH-ADC0309K3E5AN / WH-UDZ07KE5 |                                 |  |  |
| Application                               | Heating + DHW + low temp        |  |  |
| Units                                     | Indoor + Outdoor                |  |  |
| Climate Zone                              | Colder Climate + Warmer Climate |  |  |
| Reversibility                             | Yes                             |  |  |
| Cooling mode application (optional)       | +7°C/12°C                       |  |  |

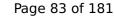
| General Data             |  |  |
|--------------------------|--|--|
| Power supply 1x230V 50Hz |  |  |

# Heating

| EN 14511-2  |                 |                    |  |
|-------------|-----------------|--------------------|--|
|             | Low temperature | Medium temperature |  |
| Heat output | 7.00 kW         | 7.00 kW            |  |
| El input    | 1.44 kW         | 2.40 kW            |  |
| СОР         | 4.86            | 2.92               |  |

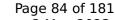
| EN 14511-4                                 |        |  |
|--|--------|--|
| Shutting off the heat transfer medium flow | passed |  |
| Complete power supply failure              | passed |  |
| Defrost test                               | passed |  |
| Starting and operating test                | passed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

# Cooling





| EN 14511-2       |         |  |
|------------------|---------|--|
| +7°C/+12°C       |         |  |
| El input         | 2.21 kW |  |
| Cooling capacity | 6.70    |  |
| EER              | 3.03    |  |





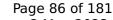
|                               | +7°C/+12°C |
|-------------------------------|------------|
| Pdesignc                      | 6.00 kW    |
| SEER                          | 5.43       |
| Pdc Tj = 35°C                 | 6.00 kW    |
| EER Tj = 35°C                 | 3.13       |
| Cdc Tj = 35 °C                | 1.000      |
| Pdc Tj = 30°C                 | 4.42 kW    |
| EER Tj = 30°C                 | 4.35       |
| Cdc Tj = 30 °C                | 1.000      |
| Pdc Tj = 25°C                 | 2.84 kW    |
| EER Tj = 25°C                 | 6.52       |
| Cdc Tj = 25 °C                | 1.000      |
| Pdc Tj = 20°C                 | 1.26 kW    |
| EER Tj = 20°C                 | 8.73       |
| Cdc Tj = 20 °C                | 1.000      |
| Poff                          | 12 W       |
| РТО                           | o w        |
| PSB                           | 12 W       |
| PCK                           | o w        |
| Annual energy consumption Qce | 386 kWh    |

# Warmer Climate



| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

| EN 14825        |                 |                    |
|-----------------|-----------------|--------------------|
|                 | Low temperature | Medium temperature |
| $\eta_{s}$      | 227 %           | 160 %              |
| Prated          | 7.00 kW         | 6.00 kW            |
| SCOP            | 5.75            | 4.07               |
| Tbiv            | 2 °C            | 2 °C               |
| TOL             | 2 °C            | 2 °C               |
| Pdh Tj = +2°C   | 7.07 kW         | 6.10 kW            |
| COP Tj = +2°C   | 2.80            | 2.14               |
| Cdh Tj = +2 °C  | 0.980           | 0.980              |
| Pdh Tj = +7°C   | 4.51 kW         | 3.80 kW            |
| COP Tj = +7°C   | 5.37            | 3.51               |
| Cdh Tj = +7 °C  | 0.950           | 0.960              |
| Pdh Tj = 12°C   | 3.45 kW         | 3.25 kW            |
| COP Tj = 12°C   | 7.77            | 5.80               |
| Cdh Tj = +12 °C | 0.900           | 0.920              |





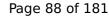
| Pdh Tj = Tbiv                                       | 7.00 kW     | 6.00 kW     |
|---|-------------|-------------|
| COP Tj = Tbiv                                       | 2.80        | 2.14        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.07 kW     | 6.10 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.80        | 2.14        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 12 W        | 12 W        |
| РТО   | 46 W        | 46 W        |
| PSB   | 10 W        | 10 W        |
| PCK   | 18 W        | 18 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.00 kW     |
| Annual energy consumption Qhe                       | 1627 kWh    | 1971 kWh    |

## Colder Climate

| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |



|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_{s}$  | 164 %           | 116 %              |
| Prated  | 7.00 kW         | 6.00 kW            |
| SCOP  | 4.18            | 2.98               |
| Tbiv  | -15 °C          | -15 °C             |
| TOL   | -22 °C          | -22 °C             |
| Pdh Tj = $-7^{\circ}$ C                             | 4.17 kW         | 3.64 kW            |
| $COP Tj = -7^{\circ}C$                              | 3.41            | 2.41               |
| Cdh Tj = -7 °C                                      | 0.960           | 0.970              |
| Pdh Tj = $+2$ °C                                    | 2.54 kW         | 2.25 kW            |
| COP Tj = +2°C                                       | 5.39            | 3.75               |
| Cdh Tj = +2 °C                                      | 0.900           | 0.920              |
| Pdh Tj = $+7^{\circ}$ C                             | 2.96 kW         | 2.81 kW            |
| $COPTj = +7^{\circ}C$                               | 6.69            | 5.01               |
| Cdh Tj = $+7$ °C                                    | 0.900           | 0.920              |
| Pdh Tj = 12°C                                       | 3.40 kW         | 3.33 kW            |
| COP Tj = 12°C                                       | 8.24            | 6.67               |
| Cdh Tj = +12 °C                                     | 0.900           | 0.910              |
| Pdh Tj = Tbiv                                       | 5.71 kW         | 4.89 kW            |
| COP Tj = Tbiv                                       | 2.44            | 1.72               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 4.72 kW         | 3.74 kW            |





| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 1.82        | 1.08        |
|---|-------------|-------------|
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 12 W        | 12 W        |
| PTO   | 46 W        | 46 W        |
| PSB   | 10 W        | 10 W        |
| PCK   | 18 W        | 18 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.28 kW     | 2.26 kW     |
| Annual energy consumption Qhe                       | 4132 kWh    | 4967 kWh    |
| Pdh Tj = -15°C (if TOL<-20°C)                       | 5.72        | 4.86        |
| COP Tj = -15°C (if TOL $<$ -20°C)                   | 2.44        | 1.72        |
| Cdh Tj = -15 °C                                     | 0.980       | 0.980       |

# **Average Climate**

| EN 12102-1                |                 |                    |  |
|---------------------------|-----------------|--------------------|--|
|                           | Low temperature | Medium temperature |  |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |  |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |  |



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|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_{s}$  | 193 %           | 142 %              |
| Prated  | 7.00 kW         | 7.00 kW            |
| SCOP  | 4.90            | 3.62               |
| Tbiv  | -10 °C          | -7 °C              |
| TOL   | -10 °C          | -10 °C             |
| Pdh Tj = $-7^{\circ}$ C                             | 6.25 kW         | 6.23 kW            |
| COP Tj = $-7^{\circ}$ C                             | 2.80            | 2.18               |
| Cdh Tj = -7 °C                                      | 0.980           | 0.980              |
| Pdh Tj = $+2$ °C                                    | 3.78 kW         | 3.82 kW            |
| $COPTj = +2^{\circ}C$                               | 5.03            | 3.69               |
| Cdh Tj = $+2$ °C                                    | 0.940           | 0.960              |
| Pdh Tj = $+7^{\circ}$ C                             | 2.95 kW         | 2.50 kW            |
| $COPTj = +7^{\circ}C$                               | 6.56            | 4.50               |
| Cdh Tj = +7 °C                                      | 0.900           | 0.920              |
| Pdh Tj = 12°C                                       | 3.44 kW         | 3.10 kW            |
| COP Tj = 12°C                                       | 8.47            | 6.55               |
| Cdh Tj = +12 °C                                     | 0.900           | 0.900              |
| Pdh Tj = Tbiv                                       | 7.00 kW         | 6.19 kW            |
| COP Tj = Tbiv                                       | 2.60            | 2.18               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.00 kW         | 6.18 kW            |





| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.60        | 1.84        |
|---|-------------|-------------|
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 12 W        | 12 W        |
| РТО   | 46 W        | 46 W        |
| PSB   | 10 W        | 10 W        |
| PCK   | 18 W        | 18 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.82 kW     |
| Annual energy consumption Qhe                       | 2949 kWh    | 3999 kWh    |

# Domestic Hot Water (DHW)

## Warmer Climate

| EN 16147                        |            |  |
|---------------------------------|------------|--|
| Declared load profile           | L          |  |
| Efficiency ηDHW                 | 161 %      |  |
| СОР                             | 4.03       |  |
| Heating up time                 | 1:06 h:min |  |
| Standby power input             | 28.0 W     |  |
| Reference hot water temperature | 52.8 °C    |  |
| Mixed water at 40°C             | 245 I      |  |



## Colder Climate

| EN 16147                        |            |  |
|---------------------------------|------------|--|
| Declared load profile           | L          |  |
| Efficiency ηDHW                 | 113 %      |  |
| СОР                             | 2.82       |  |
| Heating up time                 | 1:06 h:min |  |
| Standby power input             | 36.0 W     |  |
| Reference hot water temperature | 52.8 °C    |  |
| Mixed water at 40°C             | 245 I      |  |

# Average Climate

| EN 16147                        |            |  |
|---------------------------------|------------|--|
|                                 |            |  |
| Declared load profile           | L          |  |
| Efficiency ηDHW                 | 140 %      |  |
| СОР                             | 3.51       |  |
| Heating up time                 | 1:06 h:min |  |
| Standby power input             | 32.0 W     |  |
| Reference hot water temperature | 52.8 °C    |  |
| Mixed water at 40°C             | 245 l      |  |



# Model: WH-ADC0309K3E5B / WH-UDZ07KE5

| Configure model                     |                                 |  |
|-------------------------------------|---------------------------------|--|
| Model name                          | WH-ADC0309K3E5B / WH-UDZ07KE5   |  |
| Application                         | Heating + DHW + low temp        |  |
| Units                               | Indoor + Outdoor                |  |
| Climate Zone                        | Colder Climate + Warmer Climate |  |
| Reversibility                       | Yes                             |  |
| Cooling mode application (optional) | +7°C/12°C                       |  |

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

# Heating

| EN 14511-2  |                 |                    |  |
|-------------|-----------------|--------------------|--|
|             | Low temperature | Medium temperature |  |
| Heat output | 7.00 kW         | 7.00 kW            |  |
| El input    | 1.44 kW         | 2.40 kW            |  |
| СОР         | 4.86            | 2.92               |  |

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

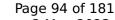
# Cooling





| EN 14511-2       |            |
|------------------|------------|
|                  | +7°C/+12°C |
| El input         | 2.21 kW    |
| Cooling capacity | 6.70       |
| EER              | 3.03       |

## EN 14825





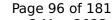
| This information was generated by the Hir KL | +7°C/+12°C |
|--|------------|
| Pdesignc                                     | 6.00 kW    |
| SEER   | 5.43       |
| Pdc Tj = 35°C                                | 6.00 kW    |
| EER Tj = 35°C                                | 3.13       |
| Cdc Tj = 35 °C                               | 1.000      |
| Pdc Tj = 30°C                                | 4.42 kW    |
| EER Tj = 30°C                                | 4.35       |
| Cdc Tj = 30 °C                               | 1.000      |
| Pdc Tj = 25°C                                | 2.84 kW    |
| EER Tj = 25°C                                | 6.52       |
| Cdc Tj = 25 °C                               | 1.000      |
| Pdc Tj = 20°C                                | 1.26 kW    |
| EER Tj = 20°C                                | 8.73       |
| Cdc Tj = 20 °C                               | 1.000      |
| Poff   | 12 W       |
| РТО  | o w        |
| PSB  | 12 W       |
| PCK  | o w        |
| Annual energy consumption Qce                | 386 kWh    |

## Warmer Climate



| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

| EN 14825                |                 |                    |
|-------------------------|-----------------|--------------------|
|                         | Low temperature | Medium temperature |
| $\eta_{s}$              | 227 %           | 160 %              |
| Prated                  | 7.00 kW         | 6.00 kW            |
| SCOP                    | 5.75            | 4.07               |
| Tbiv                    | 2 °C            | 2 °C               |
| TOL                     | 2 °C            | 2 °C               |
| Pdh Tj = +2°C           | 7.07 kW         | 6.10 kW            |
| COP Tj = +2°C           | 2.80            | 2.14               |
| Cdh Tj = +2 °C          | 0.980           | 0.980              |
| Pdh Tj = $+7^{\circ}$ C | 4.51 kW         | 3.80 kW            |
| COP Tj = +7°C           | 5.37            | 3.51               |
| Cdh Tj = +7 °C          | 0.950           | 0.960              |
| Pdh Tj = 12°C           | 3.45 kW         | 3.25 kW            |
| COP Tj = 12°C           | 7.77            | 5.80               |
| Cdh Tj = +12 °C         | 0.900           | 0.920              |





| <u> </u>    |   |
|-------------|---|
| 7.00 kW     | 6.00 kW   |
| 2.80        | 2.14  |
| 7.07 kW     | 6.10 kW   |
| 2.80        | 2.14  |
| 0.900       | 0.900   |
| 55 °C       | 55 °C   |
| 12 W        | 12 W  |
| 46 W        | 46 W  |
| 10 W        | 10 W  |
| 18 W        | 18 W  |
| Electricity | Electricity   |
| 0.00 kW     | 0.00 kW   |
| 1627 kWh    | 1971 kWh  |
|             | 2.80 7.07 kW 2.80 0.900 55 °C 12 W 46 W 10 W 18 W Electricity 0.00 kW |

## Colder Climate

| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |



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|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_{s}$  | 164 %           | 116 %              |
| Prated  | 7.00 kW         | 6.00 kW            |
| SCOP  | 4.18            | 2.98               |
| Tbiv  | -15 °C          | -15 °C             |
| TOL   | -22 °C          | -22 °C             |
| Pdh Tj = $-7^{\circ}$ C                             | 4.17 kW         | 3.64 kW            |
| $COP Tj = -7^{\circ}C$                              | 3.41            | 2.41               |
| Cdh Tj = -7 °C                                      | 0.960           | 0.970              |
| Pdh Tj = $+2$ °C                                    | 2.54 kW         | 2.25 kW            |
| COP Tj = +2°C                                       | 5.39            | 3.75               |
| Cdh Tj = +2 °C                                      | 0.900           | 0.920              |
| Pdh Tj = $+7^{\circ}$ C                             | 2.96 kW         | 2.81 kW            |
| $COPTj = +7^{\circ}C$                               | 6.69            | 5.01               |
| Cdh Tj = $+7$ °C                                    | 0.900           | 0.920              |
| Pdh Tj = 12°C                                       | 3.40 kW         | 3.33 kW            |
| COP Tj = 12°C                                       | 8.24            | 6.67               |
| Cdh Tj = +12 °C                                     | 0.900           | 0.910              |
| Pdh Tj = Tbiv                                       | 5.71 kW         | 4.89 kW            |
| COP Tj = Tbiv                                       | 2.44            | 1.72               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 4.72 kW         | 3.74 kW            |





| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 1.82        | 1.08        |
|---|-------------|-------------|
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 12 W        | 12 W        |
| РТО   | 46 W        | 46 W        |
| PSB   | 10 W        | 10 W        |
| PCK   | 18 W        | 18 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.28 kW     | 2.26 kW     |
| Annual energy consumption Qhe                       | 4132 kWh    | 4967 kWh    |
| Pdh Tj = -15°C (if TOL<-20°C)                       | 5.72        | 4.86        |
| COP Tj = -15°C (if TOL $<$ -20°C)                   | 2.44        | 1.72        |
| Cdh Tj = -15 °C                                     | 0.980       | 0.980       |

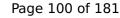
# **Average Climate**

| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |



Page 99 of 181 This information was generated by the HP KEYMARK database on 2 May 2023

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_{s}$  | 193 %           | 142 %              |
| Prated  | 7.00 kW         | 7.00 kW            |
| SCOP  | 4.90            | 3.62               |
| Tbiv  | -10 °C          | -7 °C              |
| TOL   | -10 °C          | -10 °C             |
| Pdh Tj = $-7^{\circ}$ C                             | 6.25 kW         | 6.23 kW            |
| COP Tj = $-7^{\circ}$ C                             | 2.80            | 2.18               |
| Cdh Tj = -7 °C                                      | 0.980           | 0.980              |
| Pdh Tj = $+2$ °C                                    | 3.78 kW         | 3.82 kW            |
| $COPTj = +2^{\circ}C$                               | 5.03            | 3.69               |
| Cdh Tj = $+2$ °C                                    | 0.940           | 0.960              |
| Pdh Tj = $+7^{\circ}$ C                             | 2.95 kW         | 2.50 kW            |
| $COPTj = +7^{\circ}C$                               | 6.56            | 4.50               |
| Cdh Tj = +7 °C                                      | 0.900           | 0.920              |
| Pdh Tj = 12°C                                       | 3.44 kW         | 3.10 kW            |
| COP Tj = 12°C                                       | 8.47            | 6.55               |
| Cdh Tj = +12 °C                                     | 0.900           | 0.900              |
| Pdh Tj = Tbiv                                       | 7.00 kW         | 6.19 kW            |
| COP Tj = Tbiv                                       | 2.60            | 2.18               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.00 kW         | 6.18 kW            |





| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.60        | 1.84        |
|---|-------------|-------------|
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 12 W        | 12 W        |
| PTO   | 46 W        | 46 W        |
| PSB   | 10 W        | 10 W        |
| PCK   | 18 W        | 18 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.82 kW     |
| Annual energy consumption Qhe                       | 2949 kWh    | 3999 kWh    |

# Domestic Hot Water (DHW)

## Warmer Climate

| EN 16147                        |            |
|---------------------------------|------------|
| Declared load profile           | L          |
| Efficiency ηDHW                 | 161 %      |
| СОР                             | 4.03       |
| Heating up time                 | 1:06 h:min |
| Standby power input             | 28.0 W     |
| Reference hot water temperature | 52.8 °C    |
| Mixed water at 40°C             | 245 I      |



## Colder Climate

| EN 16147                        |            |  |
|---------------------------------|------------|--|
| Declared load profile           |            |  |
|                                 | L          |  |
| Efficiency ηDHW                 | 113 %      |  |
| СОР                             | 2.82       |  |
| Heating up time                 | 1:06 h:min |  |
| Standby power input             | 36.0 W     |  |
| Reference hot water temperature | 52.8 °C    |  |
| Mixed water at 40°C             | 245 I      |  |

# Average Climate

| EN 16147                        |            |  |
|---------------------------------|------------|--|
|                                 |            |  |
| Declared load profile           | L          |  |
| Efficiency ηDHW                 | 140 %      |  |
| СОР                             | 3.51       |  |
| Heating up time                 | 1:06 h:min |  |
| Standby power input             | 32.0 W     |  |
| Reference hot water temperature | 52.8 °C    |  |
| Mixed water at 40°C             | 245 I      |  |



# Model: WH-ADC0309K6E5 / WH-UDZ07KE5

| Configure model                     |                                 |  |
|-------------------------------------|---------------------------------|--|
| Model name                          | WH-ADC0309K6E5 / WH-UDZ07KE5    |  |
| Application                         | Heating + DHW + low temp        |  |
| Units                               | Indoor + Outdoor                |  |
| Climate Zone                        | Colder Climate + Warmer Climate |  |
| Reversibility                       | Yes                             |  |
| Cooling mode application (optional) | +7°C/12°C                       |  |

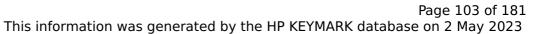
| General Data |             |  |
|--------------|-------------|--|
| Power supply | 1x230V 50Hz |  |

# Heating

| EN 14511-2                         |         |         |  |
|------------------------------------|---------|---------|--|
| Low temperature Medium temperature |         |         |  |
| Heat output                        | 7.00 kW | 7.00 kW |  |
| El input                           | 1.44 kW | 2.40 kW |  |
| СОР                                | 4.86    | 2.92    |  |

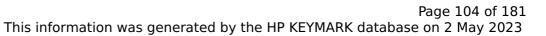
| EN 14511-4                                 |        |
|--|--------|
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure              | passed |
| Defrost test                               | passed |
| Starting and operating test                | passed |

# Cooling





| EN 14511-2       |            |  |
|------------------|------------|--|
|                  | +7°C/+12°C |  |
| El input         | 2.21 kW    |  |
| Cooling capacity | 6.70       |  |
| EER              | 3.03       |  |





|                               | +7°C/+12°C |
|-------------------------------|------------|
| Pdesignc                      | 6.00 kW    |
| SEER                          | 5.43       |
| Pdc Tj = 35°C                 | 6.00 kW    |
| EER Tj = 35°C                 | 3.13       |
| Cdc Tj = 35 °C                | 1.000      |
| Pdc Tj = 30°C                 | 4.42 kW    |
| EER Tj = 30°C                 | 4.35       |
| Cdc Tj = 30 °C                | 1.000      |
| Pdc Tj = 25°C                 | 2.84 kW    |
| EER Tj = 25°C                 | 6.52       |
| Cdc Tj = 25 °C                | 1.000      |
| Pdc Tj = 20°C                 | 1.26 kW    |
| EER Tj = 20°C                 | 8.73       |
| Cdc Tj = 20 °C                | 1.000      |
| Poff                          | 12 W       |
| РТО                           | 0 W        |
| PSB                           | 12 W       |
| PCK                           | 0 W        |
| Annual energy consumption Qce | 386 kWh    |

## Warmer Climate



| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

| EN 14825                |                 |                    |
|-------------------------|-----------------|--------------------|
|                         | Low temperature | Medium temperature |
| $\eta_{s}$              | 227 %           | 160 %              |
| Prated                  | 7.00 kW         | 6.00 kW            |
| SCOP                    | 5.75            | 4.07               |
| Tbiv                    | 2 °C            | 2 °C               |
| TOL                     | 2 °C            | 2 °C               |
| Pdh Tj = +2°C           | 7.07 kW         | 6.10 kW            |
| COP Tj = +2°C           | 2.80            | 2.14               |
| Cdh Tj = +2 °C          | 0.980           | 0.980              |
| Pdh Tj = $+7^{\circ}$ C | 4.51 kW         | 3.80 kW            |
| COP Tj = +7°C           | 5.37            | 3.51               |
| Cdh Tj = +7 °C          | 0.950           | 0.960              |
| Pdh Tj = 12°C           | 3.45 kW         | 3.25 kW            |
| COP Tj = 12°C           | 7.77            | 5.80               |
| Cdh Tj = +12 °C         | 0.900           | 0.920              |





| <u> </u>    |   |
|-------------|---|
| 7.00 kW     | 6.00 kW   |
| 2.80        | 2.14  |
| 7.07 kW     | 6.10 kW   |
| 2.80        | 2.14  |
| 0.900       | 0.900   |
| 55 °C       | 55 °C   |
| 12 W        | 12 W  |
| 46 W        | 46 W  |
| 10 W        | 10 W  |
| 18 W        | 18 W  |
| Electricity | Electricity   |
| 0.00 kW     | 0.00 kW   |
| 1627 kWh    | 1971 kWh  |
|             | 2.80 7.07 kW 2.80 0.900 55 °C 12 W 46 W 10 W 18 W Electricity 0.00 kW |

## Colder Climate

| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |



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This information was generated by the HP KEYMARK database on 2 May 2023

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_{s}$  | 164 %           | 116 %              |
| Prated  | 7.00 kW         | 6.00 kW            |
| SCOP  | 4.18            | 2.98               |
| Tbiv  | -15 °C          | -15 °C             |
| TOL   | -22 °C          | -22 °C             |
| Pdh Tj = $-7^{\circ}$ C                             | 4.17 kW         | 3.64 kW            |
| COP Tj = -7°C                                       | 3.41            | 2.41               |
| Cdh Tj = -7 °C                                      | 0.960           | 0.970              |
| Pdh Tj = $+2$ °C                                    | 2.54 kW         | 2.25 kW            |
| $COP Tj = +2^{\circ}C$                              | 5.39            | 3.75               |
| Cdh Tj = +2 °C                                      | 0.900           | 0.920              |
| Pdh Tj = $+7$ °C                                    | 2.96 kW         | 2.81 kW            |
| $COPTj = +7^{\circ}C$                               | 6.69            | 5.01               |
| Cdh Tj = +7 °C                                      | 0.900           | 0.920              |
| Pdh Tj = 12°C                                       | 3.40 kW         | 3.33 kW            |
| COP Tj = 12°C                                       | 8.24            | 6.67               |
| Cdh Tj = +12 °C                                     | 0.900           | 0.910              |
| Pdh Tj = Tbiv                                       | 5.71 kW         | 4.89 kW            |
| COP Tj = Tbiv                                       | 2.44            | 1.72               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 4.72 kW         | 3.74 kW            |





| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 1.82        | 1.08        |
|---|-------------|-------------|
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 12 W        | 12 W        |
| РТО   | 46 W        | 46 W        |
| PSB   | 10 W        | 10 W        |
| PCK   | 18 W        | 18 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.28 kW     | 2.26 kW     |
| Annual energy consumption Qhe                       | 4132 kWh    | 4967 kWh    |
| Pdh Tj = -15°C (if TOL<-20°C)                       | 5.72        | 4.86        |
| COP Tj = -15°C (if TOL<-20°C)                       | 2.44        | 1.72        |
| Cdh Tj = -15 °C                                     | 0.980       | 0.980       |

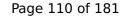
# **Average Climate**

| EN 12102-1                |                 |                    |  |
|---------------------------|-----------------|--------------------|--|
|                           | Low temperature | Medium temperature |  |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |  |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |  |



# Page 109 of 181 This information was generated by the HP KEYMARK database on 2 May 2023

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_{s}$  | 193 %           | 142 %              |
| Prated  | 7.00 kW         | 7.00 kW            |
| SCOP  | 4.90            | 3.62               |
| Tbiv  | -10 °C          | -7 °C              |
| TOL   | -10 °C          | -10 °C             |
| Pdh Tj = $-7^{\circ}$ C                             | 6.25 kW         | 6.23 kW            |
| COP Tj = -7°C                                       | 2.80            | 2.18               |
| Cdh Tj = -7 °C                                      | 0.980           | 0.980              |
| Pdh Tj = $+2$ °C                                    | 3.78 kW         | 3.82 kW            |
| $COP Tj = +2^{\circ}C$                              | 5.03            | 3.69               |
| Cdh Tj = +2 °C                                      | 0.940           | 0.960              |
| Pdh Tj = $+7$ °C                                    | 2.95 kW         | 2.50 kW            |
| $COPTj = +7^{\circ}C$                               | 6.56            | 4.50               |
| Cdh Tj = +7 °C                                      | 0.900           | 0.920              |
| Pdh Tj = 12°C                                       | 3.44 kW         | 3.10 kW            |
| COP Tj = 12°C                                       | 8.47            | 6.55               |
| Cdh Tj = +12 °C                                     | 0.900           | 0.900              |
| Pdh Tj = Tbiv                                       | 7.00 kW         | 6.19 kW            |
| COP Tj = Tbiv                                       | 2.60            | 2.18               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.00 kW         | 6.18 kW            |





| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.60        | 1.84        |
|---|-------------|-------------|
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 12 W        | 12 W        |
| PTO   | 46 W        | 46 W        |
| PSB   | 10 W        | 10 W        |
| PCK   | 18 W        | 18 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.82 kW     |
| Annual energy consumption Qhe                       | 2949 kWh    | 3999 kWh    |

# Domestic Hot Water (DHW)

| EN 16147                        |            |  |
|---------------------------------|------------|--|
| Declared load profile           | L          |  |
| Efficiency ηDHW                 | 161 %      |  |
| СОР                             | 4.03       |  |
| Heating up time                 | 1:06 h:min |  |
| Standby power input             | 28.0 W     |  |
| Reference hot water temperature | 52.8 °C    |  |
| Mixed water at 40°C             | 245 I      |  |



#### Colder Climate

| EN 16147                        |            |  |
|---------------------------------|------------|--|
| Declared load profile           |            |  |
|                                 | L          |  |
| Efficiency ηDHW                 | 113 %      |  |
| СОР                             | 2.82       |  |
| Heating up time                 | 1:06 h:min |  |
| Standby power input             | 36.0 W     |  |
| Reference hot water temperature | 52.8 °C    |  |
| Mixed water at 40°C             | 245 I      |  |

# Average Climate

| EN 16147                        |            |  |
|---------------------------------|------------|--|
|                                 |            |  |
| Declared load profile           | L          |  |
| Efficiency ηDHW                 | 140 %      |  |
| СОР                             | 3.51       |  |
| Heating up time                 | 1:06 h:min |  |
| Standby power input             | 32.0 W     |  |
| Reference hot water temperature | 52.8 °C    |  |
| Mixed water at 40°C             | 245 I      |  |



# Model: WH-ADC0309K6E5AN / WH-UDZ07KE5

| Configure model                      |                                 |  |
|--------------------------------------|---------------------------------|--|
| Model name                           | WH-ADC0309K6E5AN / WH-UDZ07KE5  |  |
| Application Heating + DHW + low temp |                                 |  |
| Units                                | Indoor + Outdoor                |  |
| Climate Zone                         | Colder Climate + Warmer Climate |  |
| Reversibility                        | Yes                             |  |
| Cooling mode application (optional)  | +7°C/12°C                       |  |

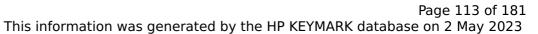
| General Data |             |  |
|--------------|-------------|--|
| Power supply | 1x230V 50Hz |  |

# Heating

| EN 14511-2  |                 |                    |
|-------------|-----------------|--------------------|
|             | Low temperature | Medium temperature |
| Heat output | 7.00 kW         | 7.00 kW            |
| El input    | 1.44 kW         | 2.40 kW            |
| СОР         | 4.86            | 2.92               |

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

# Cooling





| EN 14511-2       |         |
|------------------|---------|
| +7°C/+12°C       |         |
| El input         | 2.21 kW |
| Cooling capacity | 6.70    |
| EER              | 3.03    |



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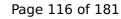
This information was generated by the HP KEYMARK database on 2 May 2023

|                               | +7°C/+12°C |
|-------------------------------|------------|
| Pdesignc                      | 6.00 kW    |
| SEER                          | 5.43       |
| Pdc Tj = 35°C                 | 6.00 kW    |
| EER Tj = 35°C                 | 3.13       |
| Cdc Tj = 35 °C                | 1.000      |
| Pdc Tj = 30°C                 | 4.42 kW    |
| EER Tj = 30°C                 | 4.35       |
| Cdc Tj = 30 °C                | 1.000      |
| Pdc Tj = 25°C                 | 2.84 kW    |
| EER Tj = 25°C                 | 6.52       |
| Cdc Tj = 25 °C                | 1.000      |
| Pdc Tj = 20°C                 | 1.26 kW    |
| EER Tj = 20°C                 | 8.73       |
| Cdc Tj = 20 °C                | 1.000      |
| Poff                          | 12 W       |
| РТО                           | o w        |
| PSB                           | 12 W       |
| PCK                           | o w        |
| Annual energy consumption Qce | 386 kWh    |



| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

| EN 14825        |                 |                    |
|-----------------|-----------------|--------------------|
|                 | Low temperature | Medium temperature |
| $\eta_{s}$      | 227 %           | 160 %              |
| Prated          | 7.00 kW         | 6.00 kW            |
| SCOP            | 5.75            | 4.07               |
| Tbiv            | 2 °C            | 2 °C               |
| TOL             | 2 °C            | 2 °C               |
| Pdh Tj = +2°C   | 7.07 kW         | 6.10 kW            |
| COP Tj = +2°C   | 2.80            | 2.14               |
| Cdh Tj = +2 °C  | 0.980           | 0.980              |
| Pdh Tj = +7°C   | 4.51 kW         | 3.80 kW            |
| COP Tj = +7°C   | 5.37            | 3.51               |
| Cdh Tj = +7 °C  | 0.950           | 0.960              |
| Pdh Tj = 12°C   | 3.45 kW         | 3.25 kW            |
| COP Tj = 12°C   | 7.77            | 5.80               |
| Cdh Tj = +12 °C | 0.900           | 0.920              |





| Pdh Tj = Tbiv                                       | 7.00 kW     | 6.00 kW     |
|---|-------------|-------------|
| COP Tj = Tbiv                                       | 2.80        | 2.14        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.07 kW     | 6.10 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.80        | 2.14        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 12 W        | 12 W        |
| РТО   | 46 W        | 46 W        |
| PSB   | 10 W        | 10 W        |
| PCK   | 18 W        | 18 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.00 kW     |
| Annual energy consumption Qhe                       | 1627 kWh    | 1971 kWh    |

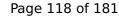
#### Colder Climate

| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |



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|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| ης  | 164 %           | 116 %              |
| Prated  | 7.00 kW         | 6.00 kW            |
| SCOP  | 4.18            | 2.98               |
| Tbiv  | -15 °C          | -15 °C             |
| TOL   | -22 °C          | -22 °C             |
| Pdh Tj = $-7^{\circ}$ C                             | 4.17 kW         | 3.64 kW            |
| $COP Tj = -7^{\circ}C$                              | 3.41            | 2.41               |
| Cdh Tj = -7 °C                                      | 0.960           | 0.970              |
| Pdh Tj = $+2$ °C                                    | 2.54 kW         | 2.25 kW            |
| COP Tj = +2°C                                       | 5.39            | 3.75               |
| Cdh Tj = $+2$ °C                                    | 0.900           | 0.920              |
| Pdh Tj = $+7^{\circ}$ C                             | 2.96 kW         | 2.81 kW            |
| $COP Tj = +7^{\circ}C$                              | 6.69            | 5.01               |
| Cdh Tj = $+7$ °C                                    | 0.900           | 0.920              |
| Pdh Tj = 12°C                                       | 3.40 kW         | 3.33 kW            |
| COP Tj = 12°C                                       | 8.24            | 6.67               |
| Cdh Tj = +12 °C                                     | 0.900           | 0.910              |
| Pdh Tj = Tbiv                                       | 5.71 kW         | 4.89 kW            |
| COP Tj = Tbiv                                       | 2.44            | 1.72               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 4.72 kW         | 3.74 kW            |





| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 1.82        | 1.08        |
|---|-------------|-------------|
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 12 W        | 12 W        |
| РТО   | 46 W        | 46 W        |
| PSB   | 10 W        | 10 W        |
| PCK   | 18 W        | 18 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.28 kW     | 2.26 kW     |
| Annual energy consumption Qhe                       | 4132 kWh    | 4967 kWh    |
| Pdh Tj = -15°C (if TOL<-20°C)                       | 5.72        | 4.86        |
| COP Tj = -15°C (if TOL $<$ -20°C)                   | 2.44        | 1.72        |
| Cdh Tj = -15 °C                                     | 0.980       | 0.980       |

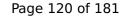
# **Average Climate**

| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |



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This information was generated by the HP KEYMARK database on 2 May 2023

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_{s}$  | 193 %           | 142 %              |
| Prated  | 7.00 kW         | 7.00 kW            |
| SCOP  | 4.90            | 3.62               |
| Tbiv  | -10 °C          | -7 °C              |
| TOL   | -10 °C          | -10 °C             |
| Pdh Tj = -7°C                                       | 6.25 kW         | 6.23 kW            |
| COP Tj = -7°C                                       | 2.80            | 2.18               |
| Cdh Tj = -7 °C                                      | 0.980           | 0.980              |
| Pdh Tj = $+2$ °C                                    | 3.78 kW         | 3.82 kW            |
| $COPTj = +2^{\circ}C$                               | 5.03            | 3.69               |
| Cdh Tj = +2 °C                                      | 0.940           | 0.960              |
| Pdh Tj = $+7^{\circ}$ C                             | 2.95 kW         | 2.50 kW            |
| $COPTj = +7^{\circ}C$                               | 6.56            | 4.50               |
| Cdh Tj = +7 °C                                      | 0.900           | 0.920              |
| Pdh Tj = 12°C                                       | 3.44 kW         | 3.10 kW            |
| COP Tj = 12°C                                       | 8.47            | 6.55               |
| Cdh Tj = +12 °C                                     | 0.900           | 0.900              |
| Pdh Tj = Tbiv                                       | 7.00 kW         | 6.19 kW            |
| COP Tj = Tbiv                                       | 2.60            | 2.18               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.00 kW         | 6.18 kW            |





| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.60        | 1.84        |
|---|-------------|-------------|
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 12 W        | 12 W        |
| PTO   | 46 W        | 46 W        |
| PSB   | 10 W        | 10 W        |
| PCK   | 18 W        | 18 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.82 kW     |
| Annual energy consumption Qhe                       | 2949 kWh    | 3999 kWh    |

# Domestic Hot Water (DHW)

| EN 16147                        |            |
|---------------------------------|------------|
| Declared load profile           | L          |
| Efficiency ηDHW                 | 161 %      |
| СОР                             | 4.03       |
| Heating up time                 | 1:06 h:min |
| Standby power input             | 28.0 W     |
| Reference hot water temperature | 52.8 °C    |
| Mixed water at 40°C             | 245 I      |



#### Colder Climate

| EN 16147                        |            |
|---------------------------------|------------|
| Designed lead outfile           |            |
| Declared load profile           | L          |
| Efficiency ηDHW                 | 113 %      |
| СОР                             | 2.82       |
| Heating up time                 | 1:06 h:min |
| Standby power input             | 36.0 W     |
| Reference hot water temperature | 52.8 °C    |
| Mixed water at 40°C             | 245 I      |

# Average Climate

| EN 16147                        |            |
|---------------------------------|------------|
|                                 |            |
| Declared load profile           | L          |
| Efficiency ηDHW                 | 140 %      |
| СОР                             | 3.51       |
| Heating up time                 | 1:06 h:min |
| Standby power input             | 32.0 W     |
| Reference hot water temperature | 52.8 °C    |
| Mixed water at 40°C             | 245 I      |



# Model: WH-ADC0309K3E5 / WH-UDZ09KE5

| Configure model                     |                                 |
|-------------------------------------|---------------------------------|
| Model name                          | WH-ADC0309K3E5 / WH-UDZ09KE5    |
| Application                         | Heating + DHW + low temp        |
| Units                               | Indoor + Outdoor                |
| Climate Zone                        | Colder Climate + Warmer Climate |
| Reversibility                       | Yes                             |
| Cooling mode application (optional) | +7°C/12°C                       |

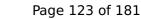
| General Data |             |  |
|--------------|-------------|--|
| Power supply | 1x230V 50Hz |  |

# Heating

| EN 14511-2                         |         |         |  |
|------------------------------------|---------|---------|--|
| Low temperature Medium temperature |         |         |  |
| Heat output                        | 9.00 kW | 8.90 kW |  |
| El input                           | 1.98 kW | 3.04 kW |  |
| СОР                                | 4.55    | 2.93    |  |

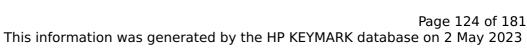
| EN 14511-4                                 |        |
|--|--------|
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure              | passed |
| Defrost test                               | passed |
| Starting and operating test                | passed |

# Cooling





| EN 14511-2       |         |  |
|------------------|---------|--|
| +7°C/+12°C       |         |  |
| El input         | 3.01 kW |  |
| Cooling capacity | 8.20    |  |
| EER              | 2.72    |  |



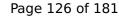


|                               | +7°C/+12°C |
|-------------------------------|------------|
| Pdesignc                      | 7.00 kW    |
| SEER                          | 5.27       |
| Pdc Tj = 35°C                 | 7.00 kW    |
| EER Tj = 35°C                 | 3.09       |
| Cdc Tj = 35 °C                | 1.000      |
| Pdc Tj = 30°C                 | 5.16 kW    |
| EER Tj = 30°C                 | 4.16       |
| Cdc Tj = 30 °C                | 1.000      |
| Pdc Tj = 25°C                 | 3.32 kW    |
| EER Tj = 25°C                 | 6.08       |
| Cdc Tj = 25 °C                | 1.000      |
| Pdc Tj = 20°C                 | 1.47 kW    |
| EER Tj = 20°C                 | 8.69       |
| Cdc Tj = 20 °C                | 1.000      |
| Poff                          | 12 W       |
| РТО                           | 0 W        |
| PSB                           | 12 W       |
| PCK                           | 0 W        |
| Annual energy consumption Qce | 465 kWh    |



| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

| EN 14825        |                 |                    |
|-----------------|-----------------|--------------------|
|                 | Low temperature | Medium temperature |
| $\eta_{s}$      | 227 %           | 160 %              |
| Prated          | 7.00 kW         | 6.00 kW            |
| SCOP            | 5.75            | 4.07               |
| Tbiv            | 2 °C            | 2 °C               |
| TOL             | 2 °C            | 2 °C               |
| Pdh Tj = +2°C   | 7.07 kW         | 6.10 kW            |
| COP Tj = +2°C   | 2.80            | 2.14               |
| Cdh Tj = +2 °C  | 0.980           | 0.980              |
| Pdh Tj = +7°C   | 4.51 kW         | 3.80 kW            |
| COP Tj = +7°C   | 5.37            | 3.51               |
| Cdh Tj = +7 °C  | 0.950           | 0.960              |
| Pdh Tj = 12°C   | 3.45 kW         | 3.25 kW            |
| COP Tj = 12°C   | 7.77            | 5.80               |
| Cdh Tj = +12 °C | 0.900           | 0.920              |





| Pdh Tj = Tbiv                                       | 7.00 kW     | 6.00 kW     |
|---|-------------|-------------|
| COP Tj = Tbiv                                       | 2.80        | 2.14        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.07 kW     | 6.10 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.80        | 2.14        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 12 W        | 12 W        |
| РТО   | 46 W        | 46 W        |
| PSB   | 10 W        | 10 W        |
| PCK   | 18 W        | 18 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.00 kW     |
| Annual energy consumption Qhe                       | 1627 kWh    | 1971 kWh    |

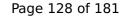
#### Colder Climate

| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |



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This information was generated by the HP KEYMARK database on 2 May 2023

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_{s}$  | 164 %           | 116 %              |
| Prated  | 7.00 kW         | 6.00 kW            |
| SCOP  | 4.18            | 2.98               |
| Tbiv  | -15 °C          | -15 °C             |
| TOL   | -22 °C          | -22 °C             |
| Pdh Tj = $-7^{\circ}$ C                             | 4.17 kW         | 3.64 kW            |
| $COP Tj = -7^{\circ}C$                              | 3.41            | 2.41               |
| Cdh Tj = -7 °C                                      | 0.960           | 0.970              |
| Pdh Tj = $+2$ °C                                    | 2.54 kW         | 2.25 kW            |
| COP Tj = +2°C                                       | 5.39            | 3.75               |
| Cdh Tj = +2 °C                                      | 0.900           | 0.920              |
| Pdh Tj = $+7^{\circ}$ C                             | 2.96 kW         | 2.81 kW            |
| $COPTj = +7^{\circ}C$                               | 6.69            | 5.01               |
| Cdh Tj = $+7$ °C                                    | 0.900           | 0.920              |
| Pdh Tj = 12°C                                       | 3.40 kW         | 3.33 kW            |
| COP Tj = 12°C                                       | 8.24            | 6.67               |
| Cdh Tj = +12 °C                                     | 0.900           | 0.910              |
| Pdh Tj = Tbiv                                       | 5.71 kW         | 4.89 kW            |
| COP Tj = Tbiv                                       | 2.44            | 1.72               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 4.72 kW         | 3.74 kW            |





| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 1.82        | 1.08        |
|---|-------------|-------------|
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 12 W        | 12 W        |
| РТО   | 46 W        | 46 W        |
| PSB   | 10 W        | 10 W        |
| PCK   | 18 W        | 18 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.28 kW     | 2.26 kW     |
| Annual energy consumption Qhe                       | 4132 kWh    | 4967 kWh    |
| Pdh Tj = -15°C (if TOL<-20°C)                       | 5.72        | 4.86        |
| COP Tj = -15°C (if TOL $<$ -20°C)                   | 2.44        | 1.72        |
| Cdh Tj = -15 °C                                     | 0.980       | 0.980       |

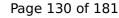
# **Average Climate**

| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |



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This information was generated by the HP KEYMARK database on 2 May 2023

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_{s}$  | 175 %           | 133 %              |
| Prated  | 8.00 kW         | 8.00 kW            |
| SCOP  | 4.44            | 3.41               |
| Tbiv  | -10 °C          | -7 °C              |
| TOL   | -10 °C          | -10 °C             |
| Pdh Tj = -7°C                                       | 7.05 kW         | 7.08 kW            |
| COP Tj = -7°C                                       | 2.81            | 2.34               |
| Cdh Tj = -7 °C                                      | 0.980           | 0.980              |
| Pdh Tj = +2°C                                       | 4.26 kW         | 4.30 kW            |
| $COP Tj = +2^{\circ}C$                              | 3.89            | 3.16               |
| Cdh Tj = +2 °C                                      | 0.960           | 0.970              |
| Pdh Tj = $+7^{\circ}$ C                             | 2.77 kW         | 2.60 kW            |
| $COPTj = +7^{\circ}C$                               | 7.16            | 4.54               |
| Cdh Tj = +7 °C                                      | 0.900           | 0.920              |
| Pdh Tj = 12°C                                       | 3.04 kW         | 3.15 kW            |
| COP Tj = 12°C                                       | 8.74            | 6.61               |
| Cdh Tj = +12 °C                                     | 0.900           | 0.900              |
| Pdh Tj = Tbiv                                       | 8.00 kW         | 7.08 kW            |
| COP Tj = Tbiv                                       | 2.78            | 2.34               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 8.00 kW         | 7.08 kW            |





| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.78        | 2.03        |
|---|-------------|-------------|
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 12 W        | 12 W        |
| РТО   | 46 W        | 46 W        |
| PSB   | 10 W        | 10 W        |
| PCK   | 18 W        | 18 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.92 kW     |
| Annual energy consumption Qhe                       | 3720 kWh    | 4851 kWh    |

# Domestic Hot Water (DHW)

| EN 16147                        |            |  |
|---------------------------------|------------|--|
| Declared load profile           | L          |  |
| Efficiency ηDHW                 | 161 %      |  |
| СОР                             | 4.03       |  |
| Heating up time                 | 1:06 h:min |  |
| Standby power input             | 28.0 W     |  |
| Reference hot water temperature | 52.8 °C    |  |
| Mixed water at 40°C             | 245 I      |  |



#### Colder Climate

| EN 16147                        |            |  |
|---------------------------------|------------|--|
| Designed lead outfile           |            |  |
| Declared load profile           | L          |  |
| Efficiency ηDHW                 | 113 %      |  |
| СОР                             | 2.82       |  |
| Heating up time                 | 1:06 h:min |  |
| Standby power input             | 36.0 W     |  |
| Reference hot water temperature | 52.8 °C    |  |
| Mixed water at 40°C             | 245 I      |  |

# Average Climate

| EN 16147                        |            |  |
|---------------------------------|------------|--|
| Declared load profile           | L          |  |
| Efficiency ηDHW                 | 140 %      |  |
| СОР                             | 3.51       |  |
| Heating up time                 | 1:06 h:min |  |
| Standby power input             | 32.0 W     |  |
| Reference hot water temperature | 52.8 °C    |  |
| Mixed water at 40°C             | 245 I      |  |



# Model: WH-ADC0309K3E5UK / WH-UDZ09KE5

| Configure model                     |                                 |  |
|-------------------------------------|---------------------------------|--|
| Model name                          | WH-ADC0309K3E5UK / WH-UDZ09KE5  |  |
| Application                         | Heating + DHW + low temp        |  |
| Units                               | Indoor + Outdoor                |  |
| Climate Zone                        | Colder Climate + Warmer Climate |  |
| Reversibility                       | Yes                             |  |
| Cooling mode application (optional) | +7°C/12°C                       |  |

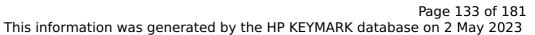
| General Data |             |  |
|--------------|-------------|--|
| Power supply | 1x230V 50Hz |  |

# Heating

| EN 14511-2  |                 |                    |
|-------------|-----------------|--------------------|
|             | Low temperature | Medium temperature |
| Heat output | 9.00 kW         | 8.90 kW            |
| El input    | 1.98 kW         | 3.04 kW            |
| СОР         | 4.55            | 2.93               |

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

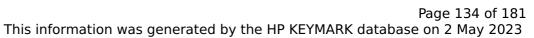
# Cooling





| EN 14511-2       |            |
|------------------|------------|
|                  | +7°C/+12°C |
| El input         | 3.01 kW    |
| Cooling capacity | 8.20       |
| EER              | 2.72       |

| EN 1400 | ) F |
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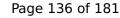


|                               | +7°C/+12°C |
|-------------------------------|------------|
| Pdesignc                      | 7.00 kW    |
| SEER                          | 5.27       |
| Pdc Tj = 35°C                 | 7.00 kW    |
| EER Tj = 35°C                 | 3.09       |
| Cdc Tj = 35 °C                | 1.000      |
| Pdc Tj = 30°C                 | 5.16 kW    |
| EER Tj = 30°C                 | 4.16       |
| Cdc Tj = 30 °C                | 1.000      |
| Pdc Tj = 25°C                 | 3.32 kW    |
| EER Tj = 25°C                 | 6.08       |
| Cdc Tj = 25 °C                | 1.000      |
| Pdc Tj = 20°C                 | 1.47 kW    |
| EER Tj = 20°C                 | 8.69       |
| Cdc Tj = 20 °C                | 1.000      |
| Poff                          | 12 W       |
| РТО                           | 0 W        |
| PSB                           | 12 W       |
| PCK                           | 0 W        |
| Annual energy consumption Qce | 465 kWh    |



| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

| EN 14825        |                 |                    |
|-----------------|-----------------|--------------------|
|                 | Low temperature | Medium temperature |
| $\eta_{s}$      | 227 %           | 160 %              |
| Prated          | 7.00 kW         | 6.00 kW            |
| SCOP            | 5.75            | 4.07               |
| Tbiv            | 2 °C            | 2 °C               |
| TOL             | 2 °C            | 2 °C               |
| Pdh Tj = +2°C   | 7.07 kW         | 6.10 kW            |
| COP Tj = +2°C   | 2.80            | 2.14               |
| Cdh Tj = +2 °C  | 0.980           | 0.980              |
| Pdh Tj = +7°C   | 4.51 kW         | 3.80 kW            |
| COP Tj = +7°C   | 5.37            | 3.51               |
| Cdh Tj = +7 °C  | 0.950           | 0.960              |
| Pdh Tj = 12°C   | 3.45 kW         | 3.25 kW            |
| COP Tj = 12°C   | 7.77            | 5.80               |
| Cdh Tj = +12 °C | 0.900           | 0.920              |





| Pdh Tj = Tbiv                                       | 7.00 kW     | 6.00 kW     |
|---|-------------|-------------|
| COP Tj = Tbiv                                       | 2.80        | 2.14        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.07 kW     | 6.10 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.80        | 2.14        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 12 W        | 12 W        |
| РТО   | 46 W        | 46 W        |
| PSB   | 10 W        | 10 W        |
| PCK   | 18 W        | 18 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.00 kW     |
| Annual energy consumption Qhe                       | 1627 kWh    | 1971 kWh    |
|   |             |             |

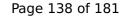
#### Colder Climate

| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |



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This information was generated by the HP KEYMARK database on 2 May 2023

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_{s}$  | 164 %           | 116 %              |
| Prated  | 7.00 kW         | 6.00 kW            |
| SCOP  | 4.18            | 2.98               |
| Tbiv  | -15 °C          | -15 °C             |
| TOL   | -22 °C          | -22 °C             |
| Pdh Tj = $-7^{\circ}$ C                             | 4.17 kW         | 3.64 kW            |
| $COP Tj = -7^{\circ}C$                              | 3.41            | 2.41               |
| Cdh Tj = -7 °C                                      | 0.960           | 0.970              |
| Pdh Tj = $+2$ °C                                    | 2.54 kW         | 2.25 kW            |
| COP Tj = +2°C                                       | 5.39            | 3.75               |
| Cdh Tj = +2 °C                                      | 0.900           | 0.920              |
| Pdh Tj = $+7^{\circ}$ C                             | 2.96 kW         | 2.81 kW            |
| $COPTj = +7^{\circ}C$                               | 6.69            | 5.01               |
| Cdh Tj = $+7$ °C                                    | 0.900           | 0.920              |
| Pdh Tj = 12°C                                       | 3.40 kW         | 3.33 kW            |
| COP Tj = 12°C                                       | 8.24            | 6.67               |
| Cdh Tj = +12 °C                                     | 0.900           | 0.910              |
| Pdh Tj = Tbiv                                       | 5.71 kW         | 4.89 kW            |
| COP Tj = Tbiv                                       | 2.44            | 1.72               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 4.72 kW         | 3.74 kW            |





| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 1.82        | 1.08        |
|---|-------------|-------------|
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 12 W        | 12 W        |
| РТО   | 46 W        | 46 W        |
| PSB   | 10 W        | 10 W        |
| PCK   | 18 W        | 18 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.28 kW     | 2.26 kW     |
| Annual energy consumption Qhe                       | 4132 kWh    | 4967 kWh    |
| Pdh Tj = -15°C (if TOL<-20°C)                       | 5.72        | 4.86        |
| COP Tj = -15°C (if TOL $<$ -20°C)                   | 2.44        | 1.72        |
| Cdh Tj = -15 °C                                     | 0.980       | 0.980       |

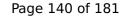
# **Average Climate**

| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |



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This information was generated by the HP KEYMARK database on 2 May 2023

| This information was generated by the HP KEYMARK database on 2 May 202 |                 |                    |
|--|-----------------|--------------------|
|  | Low temperature | Medium temperature |
| $\eta_{S}$   | 175 %           | 133 %              |
| Prated   | 8.00 kW         | 8.00 kW            |
| SCOP   | 4.44            | 3.41               |
| Tbiv   | -10 °C          | -7 °C              |
| TOL  | -10 °C          | -10 °C             |
| Pdh Tj = -7°C  | 7.05 kW         | 7.08 kW            |
| $COP Tj = -7^{\circ}C$   | 2.81            | 2.34               |
| Cdh Tj = -7 °C   | 0.980           | 0.980              |
| Pdh Tj = $+2$ °C   | 4.26 kW         | 4.30 kW            |
| $COP Tj = +2^{\circ}C$   | 3.89            | 3.16               |
| Cdh Tj = +2 °C   | 0.960           | 0.970              |
| Pdh Tj = $+7^{\circ}$ C  | 2.77 kW         | 2.60 kW            |
| $COP Tj = +7^{\circ}C$   | 7.16            | 4.54               |
| Cdh Tj = $+7$ °C   | 0.900           | 0.920              |
| Pdh Tj = 12°C  | 3.04 kW         | 3.15 kW            |
| COP Tj = 12°C  | 8.74            | 6.61               |
| Cdh Tj = +12 °C  | 0.900           | 0.900              |
| Pdh Tj = Tbiv  | 8.00 kW         | 7.08 kW            |
| COP Tj = Tbiv  | 2.78            | 2.34               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh                    | 8.00 kW         | 7.08 kW            |
|  |                 |                    |





| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.78        | 2.03        |
|---|-------------|-------------|
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 12 W        | 12 W        |
| РТО   | 46 W        | 46 W        |
| PSB   | 10 W        | 10 W        |
| PCK   | 18 W        | 18 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.92 kW     |
| Annual energy consumption Qhe                       | 3720 kWh    | 4851 kWh    |

# Domestic Hot Water (DHW)

| EN 16147                        |            |
|---------------------------------|------------|
| Declared load profile           | L          |
| Efficiency ηDHW                 | 161 %      |
| СОР                             | 4.03       |
| Heating up time                 | 1:06 h:min |
| Standby power input             | 28.0 W     |
| Reference hot water temperature | 52.8 °C    |
| Mixed water at 40°C             | 245 I      |



#### Colder Climate

| EN 16147                        |            |
|---------------------------------|------------|
|                                 |            |
| Declared load profile           | L          |
| Efficiency ηDHW                 | 113 %      |
| СОР                             | 2.82       |
| Heating up time                 | 1:06 h:min |
| Standby power input             | 36.0 W     |
| Reference hot water temperature | 52.8 °C    |
| Mixed water at 40°C             | 245 I      |

# Average Climate

| EN 16147                        |            |
|---------------------------------|------------|
| Declared load profile           | L          |
| Efficiency ηDHW                 | 140 %      |
| СОР                             | 3.51       |
| Heating up time                 | 1:06 h:min |
| Standby power input             | 32.0 W     |
| Reference hot water temperature | 52.8 °C    |
| Mixed water at 40°C             | 245 I      |



# Model: WH-ADC0309K3E5AN / WH-UDZ09KE5

| Configure model                     |                                 |  |  |
|-------------------------------------|---------------------------------|--|--|
| Model name                          | WH-ADC0309K3E5AN / WH-UDZ09KE5  |  |  |
| Application                         | Heating + DHW + low temp        |  |  |
| Units                               | Indoor + Outdoor                |  |  |
| Climate Zone                        | Colder Climate + Warmer Climate |  |  |
| Reversibility                       | Yes                             |  |  |
| Cooling mode application (optional) | +7°C/12°C                       |  |  |

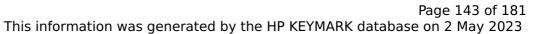
| General Data |             |  |
|--------------|-------------|--|
| Power supply | 1x230V 50Hz |  |

# Heating

| EN 14511-2  |                 |                    |  |
|-------------|-----------------|--------------------|--|
|             | Low temperature | Medium temperature |  |
| Heat output | 9.00 kW         | 8.90 kW            |  |
| El input    | 1.98 kW         | 3.04 kW            |  |
| СОР         | 4.55            | 2.93               |  |

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

# Cooling





| EN 14511-2       |            |  |
|------------------|------------|--|
|                  | +7°C/+12°C |  |
| El input         | 3.01 kW    |  |
| Cooling capacity | 8.20       |  |
| EER              | 2.72       |  |



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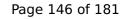
This information was generated by the HP KEYMARK database on 2 May 2023

|                               | +7°C/+12°C |
|-------------------------------|------------|
| Pdesignc                      | 7.00 kW    |
| SEER                          | 5.27       |
| Pdc Tj = 35°C                 | 7.00 kW    |
| EER Tj = 35°C                 | 3.09       |
| Cdc Tj = 35 °C                | 1.000      |
| Pdc Tj = 30°C                 | 5.16 kW    |
| EER Tj = 30°C                 | 4.16       |
| Cdc Tj = 30 °C                | 1.000      |
| Pdc Tj = 25°C                 | 3.32 kW    |
| EER Tj = 25°C                 | 6.08       |
| Cdc Tj = 25 °C                | 1.000      |
| Pdc Tj = 20°C                 | 1.47 kW    |
| EER Tj = 20°C                 | 8.69       |
| Cdc Tj = 20 °C                | 1.000      |
| Poff                          | 12 W       |
| РТО                           | 0 W        |
| PSB                           | 12 W       |
| PCK                           | o w        |
| Annual energy consumption Qce | 465 kWh    |



| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

| EN 14825        |                 |                    |
|-----------------|-----------------|--------------------|
|                 | Low temperature | Medium temperature |
| $\eta_{s}$      | 227 %           | 160 %              |
| Prated          | 7.00 kW         | 6.00 kW            |
| SCOP            | 5.75            | 4.07               |
| Tbiv            | 2 °C            | 2 °C               |
| TOL             | 2 °C            | 2 °C               |
| Pdh Tj = +2°C   | 7.07 kW         | 6.10 kW            |
| COP Tj = +2°C   | 2.80            | 2.14               |
| Cdh Tj = +2 °C  | 0.980           | 0.980              |
| Pdh Tj = +7°C   | 4.51 kW         | 3.80 kW            |
| COP Tj = +7°C   | 5.37            | 3.51               |
| Cdh Tj = +7 °C  | 0.950           | 0.960              |
| Pdh Tj = 12°C   | 3.45 kW         | 3.25 kW            |
| COP Tj = 12°C   | 7.77            | 5.80               |
| Cdh Tj = +12 °C | 0.900           | 0.920              |





| Pdh Tj = Tbiv                                       | 7.00 kW     | 6.00 kW     |
|---|-------------|-------------|
| COP Tj = Tbiv                                       | 2.80        | 2.14        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.07 kW     | 6.10 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.80        | 2.14        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 12 W        | 12 W        |
| РТО   | 46 W        | 46 W        |
| PSB   | 10 W        | 10 W        |
| PCK   | 18 W        | 18 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.00 kW     |
| Annual energy consumption Qhe                       | 1627 kWh    | 1971 kWh    |

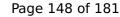
#### Colder Climate

| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |



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|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| ης  | 164 %           | 116 %              |
| Prated  | 7.00 kW         | 6.00 kW            |
| SCOP  | 4.18            | 2.98               |
| Tbiv  | -15 °C          | -15 °C             |
| TOL   | -22 °C          | -22 °C             |
| Pdh Tj = $-7^{\circ}$ C                             | 4.17 kW         | 3.64 kW            |
| $COP Tj = -7^{\circ}C$                              | 3.41            | 2.41               |
| Cdh Tj = -7 °C                                      | 0.960           | 0.970              |
| Pdh Tj = $+2$ °C                                    | 2.54 kW         | 2.25 kW            |
| COP Tj = +2°C                                       | 5.39            | 3.75               |
| Cdh Tj = $+2$ °C                                    | 0.900           | 0.920              |
| Pdh Tj = $+7^{\circ}$ C                             | 2.96 kW         | 2.81 kW            |
| $COP Tj = +7^{\circ}C$                              | 6.69            | 5.01               |
| Cdh Tj = $+7$ °C                                    | 0.900           | 0.920              |
| Pdh Tj = 12°C                                       | 3.40 kW         | 3.33 kW            |
| COP Tj = 12°C                                       | 8.24            | 6.67               |
| Cdh Tj = +12 °C                                     | 0.900           | 0.910              |
| Pdh Tj = Tbiv                                       | 5.71 kW         | 4.89 kW            |
| COP Tj = Tbiv                                       | 2.44            | 1.72               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 4.72 kW         | 3.74 kW            |





| 1.82   | 1.08  |
|--|---|
|  | 1.00  |
| 0.900  | 0.900   |
| 55 °C  | 55 °C   |
| 12 W   | 12 W  |
| 16 W   | 46 W  |
| 10 W   | 10 W  |
| 18 W   | 18 W  |
| Electricity  | Electricity                                   |
| 2.28 kW  | 2.26 kW                                       |
| 1132 kWh   | 4967 kWh                                      |
| 5.72   | 4.86  |
| 2.44   | 1.72  |
| 0.980  | 0.980   |
| 12<br>12<br>14<br>14<br>15<br>15<br>15<br>16<br>17<br>17<br>17<br>17<br>17<br>17<br>17<br>17<br>17<br>17<br>17<br>17<br>17 | 5 °C 2 W 6 W 0 W 8 W lectricity 28 kW 132 kWh |

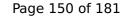
# **Average Climate**

| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |



# Page 149 of 181 This information was generated by the HP KEYMARK database on 2 May 2023

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_{s}$  | 175 %           | 133 %              |
| Prated  | 8.00 kW         | 8.00 kW            |
| SCOP  | 4.44            | 3.41               |
| Tbiv  | -10 °C          | -7 °C              |
| TOL   | -10 °C          | -10 °C             |
| Pdh Tj = -7°C                                       | 7.05 kW         | 7.08 kW            |
| COP Tj = -7°C                                       | 2.81            | 2.34               |
| Cdh Tj = -7 °C                                      | 0.980           | 0.980              |
| Pdh Tj = +2°C                                       | 4.26 kW         | 4.30 kW            |
| $COP Tj = +2^{\circ}C$                              | 3.89            | 3.16               |
| Cdh Tj = +2 °C                                      | 0.960           | 0.970              |
| Pdh Tj = $+7^{\circ}$ C                             | 2.77 kW         | 2.60 kW            |
| $COPTj = +7^{\circ}C$                               | 7.16            | 4.54               |
| Cdh Tj = +7 °C                                      | 0.900           | 0.920              |
| Pdh Tj = 12°C                                       | 3.04 kW         | 3.15 kW            |
| COP Tj = 12°C                                       | 8.74            | 6.61               |
| Cdh Tj = +12 °C                                     | 0.900           | 0.900              |
| Pdh Tj = Tbiv                                       | 8.00 kW         | 7.08 kW            |
| COP Tj = Tbiv                                       | 2.78            | 2.34               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 8.00 kW         | 7.08 kW            |





| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.78        | 2.03        |
|---|-------------|-------------|
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 12 W        | 12 W        |
| PTO   | 46 W        | 46 W        |
| PSB   | 10 W        | 10 W        |
| PCK   | 18 W        | 18 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.92 kW     |
| Annual energy consumption Qhe                       | 3720 kWh    | 4851 kWh    |

# Domestic Hot Water (DHW)

#### Warmer Climate

| EN 16147                        |            |  |
|---------------------------------|------------|--|
| Declared load profile           | L          |  |
| Efficiency ηDHW                 | 161 %      |  |
| СОР                             | 4.03       |  |
| Heating up time                 | 1:06 h:min |  |
| Standby power input             | 28.0 W     |  |
| Reference hot water temperature | 52.8 °C    |  |
| Mixed water at 40°C             | 245 I      |  |



#### Colder Climate

| EN 16147                        |            |  |
|---------------------------------|------------|--|
| Designed lead outfile           |            |  |
| Declared load profile           | L          |  |
| Efficiency ηDHW                 | 113 %      |  |
| СОР                             | 2.82       |  |
| Heating up time                 | 1:06 h:min |  |
| Standby power input             | 36.0 W     |  |
| Reference hot water temperature | 52.8 °C    |  |
| Mixed water at 40°C             | 245 I      |  |

# Average Climate

| EN 16147                        |            |  |
|---------------------------------|------------|--|
|                                 |            |  |
| Declared load profile           | L          |  |
| Efficiency ηDHW                 | 140 %      |  |
| СОР                             | 3.51       |  |
| Heating up time                 | 1:06 h:min |  |
| Standby power input             | 32.0 W     |  |
| Reference hot water temperature | 52.8 °C    |  |
| Mixed water at 40°C             | 245 I      |  |



# Model: WH-ADC0309K3E5B / WH-UDZ09KE5

| Configure model                              |           |  |  |
|--|-----------|--|--|
| Model name WH-ADC0309K3E5B / WH-UDZ09KE5     |           |  |  |
| Application Heating + DHW + low temp         |           |  |  |
| Units Indoor + Outdoor                       |           |  |  |
| Climate Zone Colder Climate + Warmer Climate |           |  |  |
| Reversibility Yes                            |           |  |  |
| Cooling mode application (optional)          | +7°C/12°C |  |  |

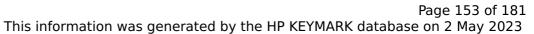
| General Data             |  |  |
|--------------------------|--|--|
| Power supply 1x230V 50Hz |  |  |

# Heating

| EN 14511-2                         |         |         |  |  |
|------------------------------------|---------|---------|--|--|
| Low temperature Medium temperature |         |         |  |  |
| Heat output                        | 9.00 kW | 8.90 kW |  |  |
| El input 1.98 kW 3.04 kW           |         | 3.04 kW |  |  |
| СОР                                | 4.55    | 2.93    |  |  |

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

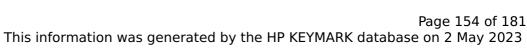
# Cooling





| EN 14511-2       |         |  |  |
|------------------|---------|--|--|
| +7°C/+12°C       |         |  |  |
| El input         | 3.01 kW |  |  |
| Cooling capacity | 8.20    |  |  |
| EER              | 2.72    |  |  |

| EN 1482 | 5 |
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|                               | +7°C/+12°C |
|-------------------------------|------------|
| Pdesignc                      | 7.00 kW    |
| SEER                          | 5.27       |
| Pdc Tj = 35°C                 | 7.00 kW    |
| EER Tj = 35°C                 | 3.09       |
| Cdc Tj = 35 °C                | 1.000      |
| Pdc Tj = 30°C                 | 5.16 kW    |
| EER Tj = 30°C                 | 4.16       |
| Cdc Tj = 30 °C                | 1.000      |
| Pdc Tj = 25°C                 | 3.32 kW    |
| EER Tj = 25°C                 | 6.08       |
| Cdc Tj = 25 °C                | 1.000      |
| Pdc Tj = 20°C                 | 1.47 kW    |
| EER Tj = 20°C                 | 8.69       |
| Cdc Tj = 20 °C                | 1.000      |
| Poff                          | 12 W       |
| РТО                           | o w        |
| PSB                           | 12 W       |
| PCK                           | o w        |
| Annual energy consumption Qce | 465 kWh    |

## Warmer Climate



| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

| EN 14825                  |         |         |  |
|---------------------------|---------|---------|--|
| Low temperature Medium to |         |         |  |
| $\eta_{s}$                | 227 %   | 160 %   |  |
| Prated                    | 7.00 kW | 6.00 kW |  |
| SCOP                      | 5.75    | 4.07    |  |
| Tbiv                      | 2 °C    | 2 °C    |  |
| TOL                       | 2 °C    | 2 °C    |  |
| Pdh Tj = +2°C             | 7.07 kW | 6.10 kW |  |
| COP Tj = +2°C             | 2.80    | 2.14    |  |
| Cdh Tj = +2 °C            | 0.980   | 0.980   |  |
| Pdh Tj = +7°C             | 4.51 kW | 3.80 kW |  |
| COP Tj = +7°C             | 5.37    | 3.51    |  |
| Cdh Tj = +7 °C            | 0.950   | 0.960   |  |
| Pdh Tj = 12°C             | 3.45 kW | 3.25 kW |  |
| COP Tj = 12°C             | 7.77    | 5.80    |  |
| Cdh Tj = +12 °C           | 0.900   | 0.920   |  |





| Pdh Tj = Tbiv                                       | 7.00 kW     | 6.00 kW     |
|---|-------------|-------------|
| COP Tj = Tbiv                                       | 2.80        | 2.14        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.07 kW     | 6.10 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.80        | 2.14        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 12 W        | 12 W        |
| РТО   | 46 W        | 46 W        |
| PSB   | 10 W        | 10 W        |
| PCK   | 18 W        | 18 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.00 kW     |
| Annual energy consumption Qhe                       | 1627 kWh    | 1971 kWh    |

#### Colder Climate

| EN 12102-1                                  |                 |                    |  |  |
|---|-----------------|--------------------|--|--|
|   | Low temperature | Medium temperature |  |  |
| Sound power level indoor                    | 41 dB(A)        | 41 dB(A)           |  |  |
| Sound power level outdoor 56 dB(A) 56 dB(A) |                 |                    |  |  |



# Page 157 of 181 This information was generated by the HP KEYMARK database on 2 May 2023

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| ης  | 164 %           | 116 %              |
| Prated  | 7.00 kW         | 6.00 kW            |
| SCOP  | 4.18            | 2.98               |
| Tbiv  | -15 °C          | -15 °C             |
| TOL   | -22 °C          | -22 °C             |
| Pdh Tj = $-7^{\circ}$ C                             | 4.17 kW         | 3.64 kW            |
| $COP Tj = -7^{\circ}C$                              | 3.41            | 2.41               |
| Cdh Tj = -7 °C                                      | 0.960           | 0.970              |
| Pdh Tj = $+2$ °C                                    | 2.54 kW         | 2.25 kW            |
| COP Tj = +2°C                                       | 5.39            | 3.75               |
| Cdh Tj = $+2$ °C                                    | 0.900           | 0.920              |
| Pdh Tj = $+7^{\circ}$ C                             | 2.96 kW         | 2.81 kW            |
| $COP Tj = +7^{\circ}C$                              | 6.69            | 5.01               |
| Cdh Tj = $+7$ °C                                    | 0.900           | 0.920              |
| Pdh Tj = 12°C                                       | 3.40 kW         | 3.33 kW            |
| COP Tj = 12°C                                       | 8.24            | 6.67               |
| Cdh Tj = +12 °C                                     | 0.900           | 0.910              |
| Pdh Tj = Tbiv                                       | 5.71 kW         | 4.89 kW            |
| COP Tj = Tbiv                                       | 2.44            | 1.72               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 4.72 kW         | 3.74 kW            |





| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 1.82        | 1.08        |
|---|-------------|-------------|
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 12 W        | 12 W        |
| РТО   | 46 W        | 46 W        |
| PSB   | 10 W        | 10 W        |
| PCK   | 18 W        | 18 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.28 kW     | 2.26 kW     |
| Annual energy consumption Qhe                       | 4132 kWh    | 4967 kWh    |
| Pdh Tj = -15°C (if TOL<-20°C)                       | 5.72        | 4.86        |
| COP Tj = -15°C (if TOL $<$ -20°C)                   | 2.44        | 1.72        |
| Cdh Tj = -15 °C                                     | 0.980       | 0.980       |
|   |             |             |

# **Average Climate**

| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |



# Page 159 of 181 This information was generated by the HP KEYMARK database on 2 May 2023

|   |                 | 1                  |
|---|-----------------|--------------------|
|   | Low temperature | Medium temperature |
| $\eta_{s}$  | 175 %           | 133 %              |
| Prated  | 8.00 kW         | 8.00 kW            |
| SCOP  | 4.44            | 3.41               |
| Tbiv  | -10 °C          | -7 °C              |
| TOL   | -10 °C          | -10 °C             |
| Pdh Tj = -7°C                                       | 7.05 kW         | 7.08 kW            |
| $COPTj = -7^{\circ}C$                               | 2.81            | 2.34               |
| Cdh Tj = -7 °C                                      | 0.980           | 0.980              |
| Pdh Tj = +2°C                                       | 4.26 kW         | 4.30 kW            |
| $COPTj = +2^{\circ}C$                               | 3.89            | 3.16               |
| Cdh Tj = +2 °C                                      | 0.960           | 0.970              |
| Pdh Tj = $+7^{\circ}$ C                             | 2.77 kW         | 2.60 kW            |
| $COPTj = +7^{\circ}C$                               | 7.16            | 4.54               |
| Cdh Tj = +7 °C                                      | 0.900           | 0.920              |
| Pdh Tj = 12°C                                       | 3.04 kW         | 3.15 kW            |
| COP Tj = 12°C                                       | 8.74            | 6.61               |
| Cdh Tj = +12 °C                                     | 0.900           | 0.900              |
| Pdh Tj = Tbiv                                       | 8.00 kW         | 7.08 kW            |
| COP Tj = Tbiv                                       | 2.78            | 2.34               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 8.00 kW         | 7.08 kW            |
|   | -               |                    |





| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.78        | 2.03        |
|---|-------------|-------------|
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 12 W        | 12 W        |
| РТО   | 46 W        | 46 W        |
| PSB   | 10 W        | 10 W        |
| PCK   | 18 W        | 18 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.92 kW     |
| Annual energy consumption Qhe                       | 3720 kWh    | 4851 kWh    |

# Domestic Hot Water (DHW)

#### Warmer Climate

| EN 16147                        |            |
|---------------------------------|------------|
| Declared load profile           | L          |
| Efficiency ηDHW                 | 161 %      |
| СОР                             | 4.03       |
| Heating up time                 | 1:06 h:min |
| Standby power input             | 28.0 W     |
| Reference hot water temperature | 52.8 °C    |
| Mixed water at 40°C             | 245 I      |



#### Colder Climate

| EN 16147                        |            |
|---------------------------------|------------|
| Designed lead outfile           |            |
| Declared load profile           | L          |
| Efficiency ηDHW                 | 113 %      |
| СОР                             | 2.82       |
| Heating up time                 | 1:06 h:min |
| Standby power input             | 36.0 W     |
| Reference hot water temperature | 52.8 °C    |
| Mixed water at 40°C             | 245 I      |

# Average Climate

| EN 16147                        |            |
|---------------------------------|------------|
|                                 |            |
| Declared load profile           | L          |
| Efficiency ηDHW                 | 140 %      |
| СОР                             | 3.51       |
| Heating up time                 | 1:06 h:min |
| Standby power input             | 32.0 W     |
| Reference hot water temperature | 52.8 °C    |
| Mixed water at 40°C             | 245 I      |



# Model: WH-ADC0309K6E5 / WH-UDZ09KE5

| Configure model                     |                                 |  |
|-------------------------------------|---------------------------------|--|
| Model name                          | WH-ADC0309K6E5 / WH-UDZ09KE5    |  |
| Application                         | Heating + DHW + low temp        |  |
| Units                               | Indoor + Outdoor                |  |
| Climate Zone                        | Colder Climate + Warmer Climate |  |
| Reversibility                       | Yes                             |  |
| Cooling mode application (optional) | +7°C/12°C                       |  |

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

# Heating

| EN 14511-2  |                 |                    |
|-------------|-----------------|--------------------|
|             | Low temperature | Medium temperature |
| Heat output | 9.00 kW         | 8.90 kW            |
| El input    | 1.98 kW         | 3.04 kW            |
| СОР         | 4.55            | 2.93               |

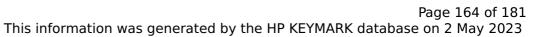
| EN 14511-4                                 |        |
|--|--------|
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure              | passed |
| Defrost test                               | passed |
| Starting and operating test                | passed |

# Cooling





| EN 14511-2       |         |  |
|------------------|---------|--|
| +7°C/+12°C       |         |  |
| El input         | 3.01 kW |  |
| Cooling capacity | 8.20    |  |
| EER              | 2.72    |  |





|                               | +7°C/+12°C |
|-------------------------------|------------|
| Pdesignc                      | 7.00 kW    |
| SEER                          | 5.27       |
| Pdc Tj = 35°C                 | 7.00 kW    |
| EER Tj = 35°C                 | 3.09       |
| Cdc Tj = 35 °C                | 1.000      |
| Pdc Tj = 30°C                 | 5.16 kW    |
| EER Tj = 30°C                 | 4.16       |
| Cdc Tj = 30 °C                | 1.000      |
| Pdc Tj = 25°C                 | 3.32 kW    |
| EER Tj = 25°C                 | 6.08       |
| Cdc Tj = 25 °C                | 1.000      |
| Pdc Tj = 20°C                 | 1.47 kW    |
| EER Tj = 20°C                 | 8.69       |
| Cdc Tj = 20 °C                | 1.000      |
| Poff                          | 12 W       |
| РТО                           | 0 W        |
| PSB                           | 12 W       |
| PCK                           | 0 W        |
| Annual energy consumption Qce | 465 kWh    |

## Warmer Climate



| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

| EN 14825        |                 |                    |
|-----------------|-----------------|--------------------|
|                 | Low temperature | Medium temperature |
| $\eta_{s}$      | 227 %           | 160 %              |
| Prated          | 7.00 kW         | 6.00 kW            |
| SCOP            | 5.75            | 4.07               |
| Tbiv            | 2 °C            | 2 °C               |
| TOL             | 2 °C            | 2 °C               |
| Pdh Tj = +2°C   | 7.07 kW         | 6.10 kW            |
| COP Tj = +2°C   | 2.80            | 2.14               |
| Cdh Tj = +2 °C  | 0.980           | 0.980              |
| Pdh Tj = +7°C   | 4.51 kW         | 3.80 kW            |
| COP Tj = +7°C   | 5.37            | 3.51               |
| Cdh Tj = +7 °C  | 0.950           | 0.960              |
| Pdh Tj = 12°C   | 3.45 kW         | 3.25 kW            |
| COP Tj = 12°C   | 7.77            | 5.80               |
| Cdh Tj = +12 °C | 0.900           | 0.920              |





| <u> </u>    |   |
|-------------|---|
| 7.00 kW     | 6.00 kW   |
| 2.80        | 2.14  |
| 7.07 kW     | 6.10 kW   |
| 2.80        | 2.14  |
| 0.900       | 0.900   |
| 55 °C       | 55 °C   |
| 12 W        | 12 W  |
| 46 W        | 46 W  |
| 10 W        | 10 W  |
| 18 W        | 18 W  |
| Electricity | Electricity   |
| 0.00 kW     | 0.00 kW   |
| 1627 kWh    | 1971 kWh  |
|             | 2.80 7.07 kW 2.80 0.900 55 °C 12 W 46 W 10 W 18 W Electricity 0.00 kW |

#### Colder Climate

| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |



# Page 167 of 181 This information was generated by the HP KEYMARK database on 2 May 2023

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_{s}$  | 164 %           | 116 %              |
| Prated  | 7.00 kW         | 6.00 kW            |
| SCOP  | 4.18            | 2.98               |
| Tbiv  | -15 °C          | -15 °C             |
| TOL   | -22 °C          | -22 °C             |
| Pdh Tj = $-7^{\circ}$ C                             | 4.17 kW         | 3.64 kW            |
| $COP Tj = -7^{\circ}C$                              | 3.41            | 2.41               |
| Cdh Tj = -7 °C                                      | 0.960           | 0.970              |
| Pdh Tj = $+2$ °C                                    | 2.54 kW         | 2.25 kW            |
| COP Tj = +2°C                                       | 5.39            | 3.75               |
| Cdh Tj = +2 °C                                      | 0.900           | 0.920              |
| Pdh Tj = $+7^{\circ}$ C                             | 2.96 kW         | 2.81 kW            |
| $COPTj = +7^{\circ}C$                               | 6.69            | 5.01               |
| Cdh Tj = $+7$ °C                                    | 0.900           | 0.920              |
| Pdh Tj = 12°C                                       | 3.40 kW         | 3.33 kW            |
| COP Tj = 12°C                                       | 8.24            | 6.67               |
| Cdh Tj = +12 °C                                     | 0.900           | 0.910              |
| Pdh Tj = Tbiv                                       | 5.71 kW         | 4.89 kW            |
| COP Tj = Tbiv                                       | 2.44            | 1.72               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 4.72 kW         | 3.74 kW            |





| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 1.82        | 1.08        |
|---|-------------|-------------|
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 12 W        | 12 W        |
| РТО   | 46 W        | 46 W        |
| PSB   | 10 W        | 10 W        |
| PCK   | 18 W        | 18 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.28 kW     | 2.26 kW     |
| Annual energy consumption Qhe                       | 4132 kWh    | 4967 kWh    |
| Pdh Tj = -15°C (if TOL<-20°C)                       | 5.72        | 4.86        |
| COP Tj = -15°C (if TOL $<$ -20°C)                   | 2.44        | 1.72        |
| Cdh Tj = -15 °C                                     | 0.980       | 0.980       |
|   |             |             |

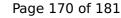
# **Average Climate**

| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |



# Page 169 of 181 This information was generated by the HP KEYMARK database on 2 May 2023

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_{s}$  | 175 %           | 133 %              |
| Prated  | 8.00 kW         | 8.00 kW            |
| SCOP  | 4.44            | 3.41               |
| Tbiv  | -10 °C          | -7 °C              |
| TOL   | -10 °C          | -10 °C             |
| Pdh Tj = -7°C                                       | 7.05 kW         | 7.08 kW            |
| COP Tj = -7°C                                       | 2.81            | 2.34               |
| Cdh Tj = -7 °C                                      | 0.980           | 0.980              |
| Pdh Tj = +2°C                                       | 4.26 kW         | 4.30 kW            |
| $COP Tj = +2^{\circ}C$                              | 3.89            | 3.16               |
| Cdh Tj = +2 °C                                      | 0.960           | 0.970              |
| Pdh Tj = $+7^{\circ}$ C                             | 2.77 kW         | 2.60 kW            |
| $COPTj = +7^{\circ}C$                               | 7.16            | 4.54               |
| Cdh Tj = +7 °C                                      | 0.900           | 0.920              |
| Pdh Tj = 12°C                                       | 3.04 kW         | 3.15 kW            |
| COP Tj = 12°C                                       | 8.74            | 6.61               |
| Cdh Tj = +12 °C                                     | 0.900           | 0.900              |
| Pdh Tj = Tbiv                                       | 8.00 kW         | 7.08 kW            |
| COP Tj = Tbiv                                       | 2.78            | 2.34               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 8.00 kW         | 7.08 kW            |





| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.78        | 2.03        |
|---|-------------|-------------|
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 12 W        | 12 W        |
| РТО   | 46 W        | 46 W        |
| PSB   | 10 W        | 10 W        |
| PCK   | 18 W        | 18 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.92 kW     |
| Annual energy consumption Qhe                       | 3720 kWh    | 4851 kWh    |

# Domestic Hot Water (DHW)

#### Warmer Climate

| EN 16147                        |            |  |
|---------------------------------|------------|--|
| Declared load profile           | L          |  |
| Efficiency ηDHW                 | 161 %      |  |
| СОР                             | 4.03       |  |
| Heating up time                 | 1:06 h:min |  |
| Standby power input             | 28.0 W     |  |
| Reference hot water temperature | 52.8 °C    |  |
| Mixed water at 40°C             | 245 I      |  |



#### Colder Climate

| EN 16147                        |            |  |
|---------------------------------|------------|--|
| Designed lead outfile           |            |  |
| Declared load profile           | L          |  |
| Efficiency ηDHW                 | 113 %      |  |
| СОР                             | 2.82       |  |
| Heating up time                 | 1:06 h:min |  |
| Standby power input             | 36.0 W     |  |
| Reference hot water temperature | 52.8 °C    |  |
| Mixed water at 40°C             | 245 I      |  |

# Average Climate

| EN 16147                        |            |  |
|---------------------------------|------------|--|
| Declared load profile           | L          |  |
| Efficiency ηDHW                 | 140 %      |  |
| СОР                             | 3.51       |  |
| Heating up time                 | 1:06 h:min |  |
| Standby power input             | 32.0 W     |  |
| Reference hot water temperature | 52.8 °C    |  |
| Mixed water at 40°C             | 245 I      |  |



# Model: WH-ADC0309K6E5AN / WH-UDZ09KE5

| Configure model                              |                                |  |
|--|--------------------------------|--|
| Model name                                   | WH-ADC0309K6E5AN / WH-UDZ09KE5 |  |
| Application Heating + DHW + low temp         |                                |  |
| Units Indoor + Outdoor                       |                                |  |
| Climate Zone Colder Climate + Warmer Climate |                                |  |
| Reversibility Yes                            |                                |  |
| Cooling mode application (optional)          | +7°C/12°C                      |  |

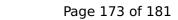
| General Data |             |  |
|--------------|-------------|--|
| Power supply | 1x230V 50Hz |  |

# Heating

| EN 14511-2                         |         |         |  |
|------------------------------------|---------|---------|--|
| Low temperature Medium temperature |         |         |  |
| Heat output                        | 9.00 kW | 8.90 kW |  |
| El input                           | 1.98 kW | 3.04 kW |  |
| СОР                                | 4.55    | 2.93    |  |

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

# Cooling





| EN 14511-2       |         |  |  |
|------------------|---------|--|--|
| +7°C/+12°C       |         |  |  |
| El input         | 3.01 kW |  |  |
| Cooling capacity | 8.20    |  |  |
| EER              | 2.72    |  |  |



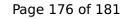
| This information was generated by the HP KE | +7°C/+12°C |
|---|------------|
| Pdesignc                                    | 7.00 kW    |
| SEER  | 5.27       |
| Pdc Tj = 35°C                               | 7.00 kW    |
| EER Tj = 35°C                               | 3.09       |
| Cdc Tj = 35 °C                              | 1.000      |
| Pdc Tj = 30°C                               | 5.16 kW    |
| EER Tj = 30°C                               | 4.16       |
| Cdc Tj = 30 °C                              | 1.000      |
| Pdc Tj = 25°C                               | 3.32 kW    |
| EER Tj = 25°C                               | 6.08       |
| Cdc Tj = 25 °C                              | 1.000      |
| Pdc Tj = 20°C                               | 1.47 kW    |
| EER Tj = 20°C                               | 8.69       |
| Cdc Tj = 20 °C                              | 1.000      |
| Poff  | 12 W       |
| РТО   | o w        |
| PSB   | 12 W       |
| РСК   | o w        |
| Annual energy consumption Qce               | 465 kWh    |

#### Warmer Climate



| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |

| EN 14825                  |         |         |  |
|---------------------------|---------|---------|--|
| Low temperature Medium te |         |         |  |
| $\eta_{s}$                | 227 %   | 160 %   |  |
| Prated                    | 7.00 kW | 6.00 kW |  |
| SCOP                      | 5.75    | 4.07    |  |
| Tbiv                      | 2 °C    | 2 °C    |  |
| TOL                       | 2 °C    | 2 °C    |  |
| Pdh Tj = +2°C             | 7.07 kW | 6.10 kW |  |
| COP Tj = +2°C             | 2.80    | 2.14    |  |
| Cdh Tj = +2 °C            | 0.980   | 0.980   |  |
| Pdh Tj = +7°C             | 4.51 kW | 3.80 kW |  |
| COP Tj = +7°C             | 5.37    | 3.51    |  |
| Cdh Tj = +7 °C            | 0.950   | 0.960   |  |
| Pdh Tj = 12°C             | 3.45 kW | 3.25 kW |  |
| COP Tj = 12°C             | 7.77    | 5.80    |  |
| Cdh Tj = +12 °C           | 0.900   | 0.920   |  |





| Pdh Tj = Tbiv                                       | 7.00 kW     | 6.00 kW     |
|---|-------------|-------------|
| COP Tj = Tbiv                                       | 2.80        | 2.14        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.07 kW     | 6.10 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.80        | 2.14        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 12 W        | 12 W        |
| РТО   | 46 W        | 46 W        |
| PSB   | 10 W        | 10 W        |
| PCK   | 18 W        | 18 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.00 kW     |
| Annual energy consumption Qhe                       | 1627 kWh    | 1971 kWh    |

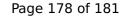
#### Colder Climate

| EN 12102-1                |                 |                    |  |
|---------------------------|-----------------|--------------------|--|
|                           | Low temperature | Medium temperature |  |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |  |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |  |



Page 177 of 181 This information was generated by the HP KEYMARK database on 2 May 2023

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_{s}$  | 164 %           | 116 %              |
| Prated  | 7.00 kW         | 6.00 kW            |
| SCOP  | 4.18            | 2.98               |
| Tbiv  | -15 °C          | -15 °C             |
| TOL   | -22 °C          | -22 °C             |
| Pdh Tj = $-7^{\circ}$ C                             | 4.17 kW         | 3.64 kW            |
| $COP Tj = -7^{\circ}C$                              | 3.41            | 2.41               |
| Cdh Tj = -7 °C                                      | 0.960           | 0.970              |
| Pdh Tj = $+2$ °C                                    | 2.54 kW         | 2.25 kW            |
| COP Tj = +2°C                                       | 5.39            | 3.75               |
| Cdh Tj = +2 °C                                      | 0.900           | 0.920              |
| Pdh Tj = $+7^{\circ}$ C                             | 2.96 kW         | 2.81 kW            |
| $COPTj = +7^{\circ}C$                               | 6.69            | 5.01               |
| Cdh Tj = $+7$ °C                                    | 0.900           | 0.920              |
| Pdh Tj = 12°C                                       | 3.40 kW         | 3.33 kW            |
| COP Tj = 12°C                                       | 8.24            | 6.67               |
| Cdh Tj = +12 °C                                     | 0.900           | 0.910              |
| Pdh Tj = Tbiv                                       | 5.71 kW         | 4.89 kW            |
| COP Tj = Tbiv                                       | 2.44            | 1.72               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 4.72 kW         | 3.74 kW            |





| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 1.82        | 1.08        |
|---|-------------|-------------|
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 12 W        | 12 W        |
| PTO   | 46 W        | 46 W        |
| PSB   | 10 W        | 10 W        |
| PCK   | 18 W        | 18 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 2.28 kW     | 2.26 kW     |
| Annual energy consumption Qhe                       | 4132 kWh    | 4967 kWh    |
| Pdh Tj = -15°C (if TOL<-20°C)                       | 5.72        | 4.86        |
| COP Tj = -15°C (if TOL $<$ -20°C)                   | 2.44        | 1.72        |
| Cdh Tj = -15 °C                                     | 0.980       | 0.980       |

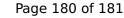
# **Average Climate**

| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |
| Sound power level outdoor | 56 dB(A)        | 56 dB(A)           |



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This information was generated by the HP KEYMARK database on 2 May 2023

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_{s}$  | 175 %           | 133 %              |
| Prated  | 8.00 kW         | 8.00 kW            |
| SCOP  | 4.44            | 3.41               |
| Tbiv  | -10 °C          | -7 °C              |
| TOL   | -10 °C          | -10 °C             |
| Pdh Tj = -7°C                                       | 7.05 kW         | 7.08 kW            |
| COP Tj = -7°C                                       | 2.81            | 2.34               |
| Cdh Tj = -7 °C                                      | 0.980           | 0.980              |
| Pdh Tj = +2°C                                       | 4.26 kW         | 4.30 kW            |
| $COPTj = +2^{\circ}C$                               | 3.89            | 3.16               |
| Cdh Tj = +2 °C                                      | 0.960           | 0.970              |
| Pdh Tj = $+7^{\circ}$ C                             | 2.77 kW         | 2.60 kW            |
| $COPTj = +7^{\circ}C$                               | 7.16            | 4.54               |
| Cdh Tj = +7 °C                                      | 0.900           | 0.920              |
| Pdh Tj = 12°C                                       | 3.04 kW         | 3.15 kW            |
| COP Tj = 12°C                                       | 8.74            | 6.61               |
| Cdh Tj = +12 °C                                     | 0.900           | 0.900              |
| Pdh Tj = Tbiv                                       | 8.00 kW         | 7.08 kW            |
| COP Tj = Tbiv                                       | 2.78            | 2.34               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 8.00 kW         | 7.08 kW            |





| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.78        | 2.03        |
|---|-------------|-------------|
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 12 W        | 12 W        |
| PTO   | 46 W        | 46 W        |
| PSB   | 10 W        | 10 W        |
| PCK   | 18 W        | 18 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.92 kW     |
| Annual energy consumption Qhe                       | 3720 kWh    | 4851 kWh    |

# Domestic Hot Water (DHW)

#### Warmer Climate

| EN 16147                        |            |
|---------------------------------|------------|
| Declared load profile           | L          |
| Efficiency ηDHW                 | 161 %      |
| СОР                             | 4.03       |
| Heating up time                 | 1:06 h:min |
| Standby power input             | 28.0 W     |
| Reference hot water temperature | 52.8 °C    |
| Mixed water at 40°C             | 245 I      |



#### Colder Climate

| EN 16147                        |            |  |
|---------------------------------|------------|--|
| Designed lead outfile           |            |  |
| Declared load profile           | L          |  |
| Efficiency ηDHW                 | 113 %      |  |
| СОР                             | 2.82       |  |
| Heating up time                 | 1:06 h:min |  |
| Standby power input             | 36.0 W     |  |
| Reference hot water temperature | 52.8 °C    |  |
| Mixed water at 40°C             | 245 I      |  |

# Average Climate

| EN 16147                        |            |  |
|---------------------------------|------------|--|
|                                 |            |  |
| Declared load profile           | L          |  |
| Efficiency ηDHW                 | 140 %      |  |
| СОР                             | 3.51       |  |
| Heating up time                 | 1:06 h:min |  |
| Standby power input             | 32.0 W     |  |
| Reference hot water temperature | 52.8 °C    |  |
| Mixed water at 40°C             | 245 I      |  |