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#### This information was generated by the HP KEYMARK database on 18 Mar 2022

#### **Login**

| Summary of          | Ecodan Power Inverter 11-200D Packaged AA   | Reg. No. | 037-0034-20    |  |
|---------------------|---|----------|----------------|--|
| Certificate Holder  | Certificate Holder  |          |                |  |
| Name                | Mitsubishi Electric Air Conditioning Systems Europe LTD                           |          |                |  |
| Address             | Nettlehill Road, Houston Industrial Estate  | Zip      | EH54 5EQ       |  |
| City                | Livingston  | Country  | United Kingdom |  |
| Certification Body  | SZU - Strojirensky zkusebni ustav (Engineering Test Institute, Public Enterprise) |          |                |  |
| Subtype title       | Ecodan Power Inverter 11-200D Packaged AA   |          |                |  |
| Heat Pump Type      | Outdoor Air/Water   |          |                |  |
| Refrigerant         | R32   |          |                |  |
| Mass of Refrigerant | 3 kg  |          |                |  |
| Certification Date  | 27.07.2020  |          |                |  |
| Testing basis       | HP Keymark scheme rules rev. no. 6  |          |                |  |



# Model: PUZ-WM112VAA(-BS) + EHPT20X-M\*D

| Configure model                     |                                 |  |
|-------------------------------------|---------------------------------|--|
| Model name                          | PUZ-WM112VAA(-BS) + EHPT20X-M*D |  |
| Application                         | Heating + DHW + low temp        |  |
| Units                               | Indoor + Outdoor                |  |
| Climate Zone                        | Warmer Climate                  |  |
| Reversibility                       | No                              |  |
| Cooling mode application (optional) | n/a                             |  |

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

## Heating

| EN 14511-2  |                 |                    |  |
|-------------|-----------------|--------------------|--|
|             | Low temperature | Medium temperature |  |
| Heat output | 11.2 kW         | 10 kW              |  |
| El input    | 2.38 kW         | 3.33 kW            |  |
| СОР         | 4.7             | 3                  |  |

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

# Average Climate



| EN 12102-1                |                 |                    |  |
|---------------------------|-----------------|--------------------|--|
|                           | Low temperature | Medium temperature |  |
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |  |
| Sound power level outdoor | 60 dB(A)        | 60 dB(A)           |  |

| EN 14825       |                 |                    |
|----------------|-----------------|--------------------|
|                | Low temperature | Medium temperature |
| $\eta_{s}$     | 191 %           | 134 %              |
| Prated         | 10 kW           | 10 kW              |
| SCOP           | 4.86            | 3.43               |
| Tbiv           | -7 °C           | -7 °C              |
| TOL            | -25 °C          | -25 °C             |
| Pdh Tj = -7°C  | 8.8 kW          | 8.8 kW             |
| COP Tj = -7°C  | 3.31            | 2.21               |
| Cdh Tj = -7 °C | 0.99            | 1                  |
| Pdh Tj = +2°C  | 5.7 kW          | 5.4 kW             |
| COP Tj = +2°C  | 4.56            | 3.27               |
| Cdh Tj = +2 °C | 0.99            | 0.99               |
| Pdh Tj = +7°C  | 4.9 kW          | 5.2 kW             |
| COP Tj = +7°C  | 6.68            | 4.61               |
| Cdh Tj = +7 °C | 0.98            | 0.99               |





|   | <del>-</del> |                                       |
|---|--------------|---------------------------------------|
| Pdh Tj = 12°C                                       | 4.6 kW       | 4.7 kW                                |
| COP Tj = 12°C                                       | 9.1          | 6.35                                  |
| Cdh Tj = +12 °C                                     | 0.97         | 0.98                                  |
| Pdh Tj = Tbiv                                       | 8.8 kW       | 8.8 kW                                |
| COP Tj = Tbiv                                       | 3.31         | 2.21                                  |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 8.78 kW      | 8.78 kW                               |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.03         | 2.11                                  |
| WTOL  | 60 °C        | 60 °C                                 |
| Poff  | 15 W         | 15 W                                  |
| РТО   | 15 W         | 15 W                                  |
| PSB   | 15 W         | 15 W                                  |
| PCK   | o w          | 0 W                                   |
| Supplementary Heater: Type of energy input          | Electricity  | Electricity                           |
| Supplementary Heater: PSUP                          | 1.22 kW      | 1.22 kW                               |
| Annual energy consumption Qhe                       | 4251 kWh     | 6024 kWh                              |
|   |              | · · · · · · · · · · · · · · · · · · · |

| EN 12102-1                |                 |                    |  |
|---------------------------|-----------------|--------------------|--|
|                           | Low temperature | Medium temperature |  |
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |  |
| Sound power level outdoor | 60 dB(A)        | 60 dB(A)           |  |





#### EN 14825

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_{s}$  | 215 %           | 152 %              |
| Prated  | 10 kW           | 10 kW              |
| SCOP  | 5.46            | 3.87               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | -25 °C          | -25 °C             |
| Pdh Tj = $+2$ °C                                      | 10 kW           | 10 kW              |
| COP Tj = +2°C   | 3.3             | 1.81               |
| Cdh Tj = +2 °C  | 1               | 1                  |
| Pdh Tj = $+7^{\circ}$ C                               | 6.4 kW          | 6.4 kW             |
| $COPTj = +7^{\circ}C$                                 | 4.82            | 3.13               |
| Cdh Tj = +7 °C  | 0.99            | 0.99               |
| Pdh Tj = 12°C   | 4.7 kW          | 4.4 kW             |
| COP Tj = 12°C   | 7.12            | 5.66               |
| Cdh Tj = +12 °C                                       | 0.98            | 0.98               |
| Pdh Tj = Tbiv   | 10 kW           | 10 kW              |
| COP Tj = Tbiv   | 3.3             | 1.81               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh | 10 kW           | 10 kW              |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh   | 3.3             | 1.81               |
| WTOL  | 60 °C           | 60 °C              |



| Poff                                       | 15 W        | 15 W        |
|--|-------------|-------------|
| PTO  | 15 W        | 15 W        |
| PSB  | 15 W        | 15 W        |
| PCK  | o w         | 0 W         |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP                 | 0 kW        | 0 kW        |
| Annual energy consumption Qhe              | 2449 kWh    | 3452 kWh    |

## Domestic Hot Water (DHW)

## Average Climate

| EN 16147                        |             |  |
|---------------------------------|-------------|--|
| Declared load profile           | L           |  |
| Efficiency ηDHW                 | 148 %       |  |
| СОР                             | 3.49        |  |
| Heating up time                 | 02:06 h:min |  |
| Standby power input             | 35 W        |  |
| Reference hot water temperature | 52.5 °C     |  |
| Mixed water at 40°C             | 278         |  |





| EN 16147                        |             |  |
|---------------------------------|-------------|--|
| Declared load profile           | L           |  |
| Efficiency ηDHW                 | 161 %       |  |
| СОР                             | 3.8         |  |
| Heating up time                 | 01:43 h:min |  |
| Standby power input             | 32 W        |  |
| Reference hot water temperature | 52.5 °C     |  |
| Mixed water at 40°C             | 278         |  |



# Model: PUZ-WM112VAA(-BS) + EHPT20X-\*M\*D

| Configure model                             |  |  |
|---|--|--|
| Model name PUZ-WM112VAA(-BS) + EHPT20X-*M*D |  |  |
| Application Heating + DHW + low temp        |  |  |
| Units Indoor + Outdoor                      |  |  |
| Climate Zone Warmer Climate                 |  |  |
| Reversibility No                            |  |  |
| Cooling mode application (optional) n/a     |  |  |

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

## Heating

| EN 14511-2  |                 |                    |
|-------------|-----------------|--------------------|
|             | Low temperature | Medium temperature |
| Heat output | 11.2 kW         | 10 kW              |
| El input    | 2.38 kW         | 3.33 kW            |
| СОР         | 4.7             | 3                  |

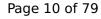
| EN 14511-4                                 |        |
|--|--------|
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure              | passed |
| Defrost test                               | passed |
| Starting and operating test                | passed |

# Average Climate



| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 60 dB(A)        | 60 dB(A)           |

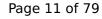
| EN 14825       |                 |                    |
|----------------|-----------------|--------------------|
|                | Low temperature | Medium temperature |
| $\eta_{s}$     | 191 %           | 134 %              |
| Prated         | 10 kW           | 10 kW              |
| SCOP           | 4.86            | 3.43               |
| Tbiv           | -7 °C           | -7 °C              |
| TOL            | -25 °C          | -25 °C             |
| Pdh Tj = -7°C  | 8.8 kW          | 8.8 kW             |
| COP Tj = -7°C  | 3.31            | 2.21               |
| Cdh Tj = -7 °C | 0.99            | 1                  |
| Pdh Tj = +2°C  | 5.7 kW          | 5.4 kW             |
| COP Tj = +2°C  | 4.56            | 3.27               |
| Cdh Tj = +2 °C | 0.99            | 0.99               |
| Pdh Tj = +7°C  | 4.9 kW          | 5.2 kW             |
| COP Tj = +7°C  | 6.68            | 4.61               |
| Cdh Tj = +7 °C | 0.98            | 0.99               |





| -           |  |
|-------------|--|
| 4.6 kW      | 4.7 kW   |
| 9.1         | 6.35   |
| 0.97        | 0.98   |
| 8.8 kW      | 8.8 kW   |
| 3.31        | 2.21   |
| 8.78 kW     | 8.78 kW  |
| 3.03        | 2.11   |
| 60 °C       | 60 °C  |
| 15 W        | 15 W   |
| 15 W        | 15 W   |
| 15 W        | 15 W   |
| o w         | o w  |
| Electricity | Electricity  |
| 1.22 kW     | 1.22 kW  |
| 4251 kWh    | 6024 kWh   |
|             | 4.6 kW  9.1  0.97  8.8 kW  3.31  8.78 kW  3.03  60 °C  15 W  15 W  0 W  Electricity  1.22 kW |

| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 60 dB(A)        | 60 dB(A)           |





#### EN 14825

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_{s}$  | 215 %           | 152 %              |
| Prated  | 10 kW           | 10 kW              |
| SCOP  | 5.46            | 3.87               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | -25 °C          | -25 °C             |
| Pdh Tj = $+2$ °C                                      | 10 kW           | 10 kW              |
| COP Tj = +2°C   | 3.3             | 1.81               |
| Cdh Tj = +2 °C  | 1               | 1                  |
| Pdh Tj = $+7^{\circ}$ C                               | 6.4 kW          | 6.4 kW             |
| $COPTj = +7^{\circ}C$                                 | 4.82            | 3.13               |
| Cdh Tj = +7 °C  | 0.99            | 0.99               |
| Pdh Tj = 12°C   | 4.7 kW          | 4.4 kW             |
| COP Tj = 12°C   | 7.12            | 5.66               |
| Cdh Tj = +12 °C                                       | 0.98            | 0.98               |
| Pdh Tj = Tbiv   | 10 kW           | 10 kW              |
| COP Tj = Tbiv   | 3.3             | 1.81               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh | 10 kW           | 10 kW              |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh   | 3.3             | 1.81               |
| WTOL  | 60 °C           | 60 °C              |



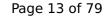


| Poff                                       | 15 W        | 15 W        |
|--|-------------|-------------|
| PTO  | 15 W        | 15 W        |
| PSB  | 15 W        | 15 W        |
| PCK  | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP                 | 0 kW        | 0 kW        |
| Annual energy consumption Qhe              | 2449 kWh    | 3452 kWh    |

## Domestic Hot Water (DHW)

## Average Climate

| EN 16147                        |             |  |
|---------------------------------|-------------|--|
| Declared load profile           | L           |  |
| Efficiency ηDHW                 | 148 %       |  |
| СОР                             | 3.49        |  |
| Heating up time                 | 02:06 h:min |  |
| Standby power input             | 35 W        |  |
| Reference hot water temperature | 52.5 °C     |  |
| Mixed water at 40°C             | 278         |  |





| EN 16147                        |             |
|---------------------------------|-------------|
| Declared load profile           | L           |
| Efficiency ηDHW                 | 161 %       |
| СОР                             | 3.8         |
| Heating up time                 | 01:43 h:min |
| Standby power input             | 32 W        |
| Reference hot water temperature | 52.5 °C     |
| Mixed water at 40°C             | 278 I       |



# Model: PUZ-WM112VAA(-BS) + EHPX-M\*D

| Configure model                     |                              |
|-------------------------------------|------------------------------|
| Model name                          | PUZ-WM112VAA(-BS) + EHPX-M*D |
| Application                         | Heating (medium temp)        |
| Units                               | Indoor + Outdoor             |
| Climate Zone                        | Warmer Climate               |
| Reversibility                       | No                           |
| Cooling mode application (optional) | n/a                          |

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

## Heating

| EN 14511-2                         |         |                    |
|------------------------------------|---------|--------------------|
| Low temperature Medium temperature |         | Medium temperature |
| Heat output                        | 11.2 kW | 10 kW              |
| El input                           | 2.38 kW | 3.33 kW            |
| СОР                                | 4.7     | 3                  |

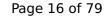
| EN 14511-4                                 |        |
|--|--------|
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure              | passed |
| Defrost test                               | passed |
| Starting and operating test                | passed |

# Average Climate



|                           | EN 12102-1      |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 60 dB(A)        | 60 dB(A)           |

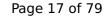
| EN 14825       |                 |                    |
|----------------|-----------------|--------------------|
|                | Low temperature | Medium temperature |
| $\eta_{s}$     | 191 %           | 134 %              |
| Prated         | 10 kW           | 10 kW              |
| SCOP           | 4.86            | 3.43               |
| Tbiv           | -7 °C           | -7 °C              |
| TOL            | -25 °C          | -25 °C             |
| Pdh Tj = -7°C  | 8.8 kW          | 8.8 kW             |
| COP Tj = -7°C  | 3.31            | 2.21               |
| Cdh Tj = -7 °C | 0.99            | 1                  |
| Pdh Tj = +2°C  | 5.7 kW          | 5.4 kW             |
| COP Tj = +2°C  | 4.56            | 3.27               |
| Cdh Tj = +2 °C | 0.99            | 0.99               |
| Pdh Tj = +7°C  | 4.9 kW          | 5.2 kW             |
| COP Tj = +7°C  | 6.68            | 4.61               |
| Cdh Tj = +7 °C | 0.98            | 0.99               |





| -           |  |
|-------------|--|
| 4.6 kW      | 4.7 kW   |
| 9.1         | 6.35   |
| 0.97        | 0.98   |
| 8.8 kW      | 8.8 kW   |
| 3.31        | 2.21   |
| 8.78 kW     | 8.78 kW  |
| 3.03        | 2.11   |
| 60 °C       | 60 °C  |
| 15 W        | 15 W   |
| 15 W        | 15 W   |
| 15 W        | 15 W   |
| o w         | o w  |
| Electricity | Electricity  |
| 1.22 kW     | 1.22 kW  |
| 4251 kWh    | 6024 kWh   |
|             | 4.6 kW  9.1  0.97  8.8 kW  3.31  8.78 kW  3.03  60 °C  15 W  15 W  0 W  Electricity  1.22 kW |

| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 60 dB(A)        | 60 dB(A)           |





#### EN 14825

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_{s}$  | 215 %           | 152 %              |
| Prated  | 10 kW           | 10 kW              |
| SCOP  | 5.46            | 3.87               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | -25 °C          | -25 °C             |
| Pdh Tj = $+2$ °C                                      | 10 kW           | 10 kW              |
| COP Tj = +2°C   | 3.3             | 1.81               |
| Cdh Tj = +2 °C  | 1               | 1                  |
| Pdh Tj = $+7^{\circ}$ C                               | 6.4 kW          | 6.4 kW             |
| $COPTj = +7^{\circ}C$                                 | 4.82            | 3.13               |
| Cdh Tj = +7 °C  | 0.99            | 0.99               |
| Pdh Tj = 12°C   | 4.7 kW          | 4.4 kW             |
| COP Tj = 12°C   | 7.12            | 5.66               |
| Cdh Tj = +12 °C                                       | 0.98            | 0.98               |
| Pdh Tj = Tbiv   | 10 kW           | 10 kW              |
| COP Tj = Tbiv   | 3.3             | 1.81               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh | 10 kW           | 10 kW              |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh   | 3.3             | 1.81               |
| WTOL  | 60 °C           | 60 °C              |



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#### This information was generated by the HP KEYMARK database on 18 Mar 2022

| Poff                                       | 15 W        | 15 W        |
|--|-------------|-------------|
| PTO  | 15 W        | 15 W        |
| PSB  | 15 W        | 15 W        |
| PCK  | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP                 | 0 kW        | 0 kW        |
| Annual energy consumption Qhe              | 2449 kWh    | 3452 kWh    |



# Model: PUZ-WM112VAA(-BS) + EHPX-\*M\*D

| Configure model                     |                               |  |
|-------------------------------------|-------------------------------|--|
| Model name                          | PUZ-WM112VAA(-BS) + EHPX-*M*D |  |
| Application                         | Heating (medium temp)         |  |
| Units                               | Indoor + Outdoor              |  |
| Climate Zone                        | Warmer Climate                |  |
| Reversibility                       | No                            |  |
| Cooling mode application (optional) | n/a                           |  |

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

## Heating

| EN 14511-2                         |         |         |  |
|------------------------------------|---------|---------|--|
| Low temperature Medium temperature |         |         |  |
| Heat output                        | 11.2 kW | 10 kW   |  |
| El input                           | 2.38 kW | 3.33 kW |  |
| СОР                                | 4.7     | 3       |  |

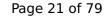
| EN 14511-4                                 |        |
|--|--------|
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure              | passed |
| Defrost test                               | passed |
| Starting and operating test                | passed |

# Average Climate



| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 60 dB(A)        | 60 dB(A)           |

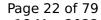
| EN 14825       |                 |                    |
|----------------|-----------------|--------------------|
|                | Low temperature | Medium temperature |
| $\eta_{s}$     | 191 %           | 134 %              |
| Prated         | 10 kW           | 10 kW              |
| SCOP           | 4.86            | 3.43               |
| Tbiv           | -7 °C           | -7 °C              |
| TOL            | -25 °C          | -25 °C             |
| Pdh Tj = -7°C  | 8.8 kW          | 8.8 kW             |
| COP Tj = -7°C  | 3.31            | 2.21               |
| Cdh Tj = -7 °C | 0.99            | 1                  |
| Pdh Tj = +2°C  | 5.7 kW          | 5.4 kW             |
| COP Tj = +2°C  | 4.56            | 3.27               |
| Cdh Tj = +2 °C | 0.99            | 0.99               |
| Pdh Tj = +7°C  | 4.9 kW          | 5.2 kW             |
| COP Tj = +7°C  | 6.68            | 4.61               |
| Cdh Tj = +7 °C | 0.98            | 0.99               |





| -           |  |
|-------------|--|
| 4.6 kW      | 4.7 kW   |
| 9.1         | 6.35   |
| 0.97        | 0.98   |
| 8.8 kW      | 8.8 kW   |
| 3.31        | 2.21   |
| 8.78 kW     | 8.78 kW  |
| 3.03        | 2.11   |
| 60 °C       | 60 °C  |
| 15 W        | 15 W   |
| 15 W        | 15 W   |
| 15 W        | 15 W   |
| o w         | o w  |
| Electricity | Electricity  |
| 1.22 kW     | 1.22 kW  |
| 4251 kWh    | 6024 kWh   |
|             | 4.6 kW  9.1  0.97  8.8 kW  3.31  8.78 kW  3.03  60 °C  15 W  15 W  0 W  Electricity  1.22 kW |

| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 60 dB(A)        | 60 dB(A)           |





#### EN 14825

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_{S}$  | 215 %           | 152 %              |
| Prated  | 10 kW           | 10 kW              |
| SCOP  | 5.46            | 3.87               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | -25 °C          | -25 °C             |
| Pdh Tj = $+2$ °C                                      | 10 kW           | 10 kW              |
| $COP Tj = +2^{\circ}C$                                | 3.3             | 1.81               |
| Cdh Tj = +2 °C  | 1               | 1                  |
| Pdh Tj = +7°C   | 6.4 kW          | 6.4 kW             |
| $COP Tj = +7^{\circ}C$                                | 4.82            | 3.13               |
| Cdh Tj = $+7$ °C                                      | 0.99            | 0.99               |
| Pdh Tj = 12°C   | 4.7 kW          | 4.4 kW             |
| COP Tj = 12°C   | 7.12            | 5.66               |
| Cdh Tj = +12 °C                                       | 0.98            | 0.98               |
| Pdh Tj = Tbiv   | 10 kW           | 10 kW              |
| COP Tj = Tbiv   | 3.3             | 1.81               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh | 10 kW           | 10 kW              |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh   | 3.3             | 1.81               |
| WTOL  | 60 °C           | 60 °C              |



# $$\operatorname{\textit{Page}}\xspace$ 23 of 79 This information was generated by the HP KEYMARK database on 18 Mar 2022

| Poff                                       | 15 W        | 15 W        |
|--|-------------|-------------|
| РТО  | 15 W        | 15 W        |
| PSB  | 15 W        | 15 W        |
| PCK  | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP                 | 0 kW        | 0 kW        |
| Annual energy consumption Qhe              | 2449 kWh    | 3452 kWh    |



# Model: PUZ-WM112VAA(-BS) + ERPT20X-M\*D

| Configure model                            |                          |  |
|--|--------------------------|--|
| Model name PUZ-WM112VAA(-BS) + ERPT20X-M*D |                          |  |
| Application                                | Heating + DHW + low temp |  |
| Units                                      | Indoor + Outdoor         |  |
| Climate Zone                               | Warmer Climate           |  |
| Reversibility                              | Yes                      |  |
| Cooling mode application (optional)        | n/a                      |  |

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

## Heating

| EN 14511-2                         |         |         |  |
|------------------------------------|---------|---------|--|
| Low temperature Medium temperature |         |         |  |
| Heat output                        | 11.2 kW | 10 kW   |  |
| El input                           | 2.38 kW | 3.33 kW |  |
| СОР                                | 4.7     | 3       |  |

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

# Average Climate



| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 60 dB(A)        | 60 dB(A)           |

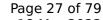
| EN 14825       |                 |                    |
|----------------|-----------------|--------------------|
|                | Low temperature | Medium temperature |
| $\eta_{s}$     | 195 %           | 136 %              |
| Prated         | 10 kW           | 10 kW              |
| SCOP           | 4.95            | 3.48               |
| Tbiv           | -7 °C           | -7 °C              |
| TOL            | -25 °C          | -25 °C             |
| Pdh Tj = -7°C  | 8.8 kW          | 8.8 kW             |
| COP Tj = -7°C  | 3.31            | 2.21               |
| Cdh Tj = -7 °C | 0.99            | 1                  |
| Pdh Tj = +2°C  | 5.7 kW          | 5.4 kW             |
| COP Tj = +2°C  | 4.61            | 3.31               |
| Cdh Tj = +2 °C | 0.99            | 0.99               |
| Pdh Tj = +7°C  | 4.9 kW          | 5.2 kW             |
| COP Tj = +7°C  | 6.68            | 4.61               |
| Cdh Tj = +7 °C | 0.98            | 0.99               |





| Pdh Tj = 12°C                                       | 4.6 kW      | 4.7 kW      |
|---|-------------|-------------|
| COP Tj = 12°C                                       | 9.1         | 6.35        |
| Cdh Tj = +12 °C                                     | 0.97        | 0.98        |
| Pdh Tj = Tbiv                                       | 8.8 kW      | 8.8 kW      |
| COP Tj = Tbiv                                       | 3.31        | 2.21        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 8.78 kW     | 8.78 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.03        | 2.11        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 15 W        | 15 W        |
| РТО   | 15 W        | 15 W        |
| PSB   | 15 W        | 15 W        |
| PCK   | o w         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 1.22 kW     | 1.22 kW     |
| Annual energy consumption Qhe                       | 4173 kWh    | 5932 kWh    |
|   |             |             |

| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 60 dB(A)        | 60 dB(A)           |





#### EN 14825

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_{s}$  | 220 %           | 154 %              |
| Prated  | 10 kW           | 10 kW              |
| SCOP  | 5.58            | 3.93               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | -25 °C          | -25 °C             |
| Pdh Tj = $+2$ °C                                      | 10 kW           | 10 kW              |
| COP Tj = +2°C   | 3.3             | 1.81               |
| Cdh Tj = +2 °C  | 1               | 1                  |
| Pdh Tj = $+7^{\circ}$ C                               | 6.4 kW          | 6.4 kW             |
| $COPTj = +7^{\circ}C$                                 | 4.76            | 3.11               |
| Cdh Tj = +7 °C  | 0.99            | 0.99               |
| Pdh Tj = 12°C   | 4.7 kW          | 4.4 kW             |
| COP Tj = 12°C   | 7.12            | 5.66               |
| Cdh Tj = +12 °C                                       | 0.98            | 0.98               |
| Pdh Tj = Tbiv   | 10 kW           | 10 kW              |
| COP Tj = Tbiv   | 3.3             | 1.81               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh | 10 kW           | 10 kW              |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh   | 3.3             | 1.81               |
| WTOL  | 60 °C           | 60 °C              |





| Poff                                       | 15 W        | 15 W        |
|--|-------------|-------------|
| РТО  | 15 W        | 15 W        |
| PSB  | 15 W        | 15 W        |
| PCK  | o w         | 0 W         |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP                 | 0 kW        | 0 kW        |
| Annual energy consumption Qhe              | 2396 kWh    | 3396 kWh    |

## Domestic Hot Water (DHW)

## Average Climate

| EN 16147                        |             |  |
|---------------------------------|-------------|--|
| Declared load profile           | L           |  |
| Efficiency ηDHW                 | 148 %       |  |
| СОР                             | 3.49        |  |
| Heating up time                 | 02:06 h:min |  |
| Standby power input             | 35 W        |  |
| Reference hot water temperature | 52.5 °C     |  |
| Mixed water at 40°C             | 278         |  |





| EN 16147                        |             |  |
|---------------------------------|-------------|--|
| Declared load profile           | L           |  |
| Efficiency ηDHW                 | 161 %       |  |
| СОР                             | 3.8         |  |
| Heating up time                 | 01:43 h:min |  |
| Standby power input             | 32 W        |  |
| Reference hot water temperature | 52.5 °C     |  |
| Mixed water at 40°C             | 278 I       |  |

# Model: PUZ-WM112VAA(-BS) + ERPT20X-\*M\*D

| Configure model                     |                                  |  |
|-------------------------------------|----------------------------------|--|
| Model name                          | PUZ-WM112VAA(-BS) + ERPT20X-*M*D |  |
| Application                         | Heating + DHW + low temp         |  |
| Units                               | Indoor + Outdoor                 |  |
| Climate Zone Warmer Climate         |                                  |  |
| Reversibility                       | Yes                              |  |
| Cooling mode application (optional) | n/a                              |  |

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

## Heating

| EN 14511-2                         |         |         |  |
|------------------------------------|---------|---------|--|
| Low temperature Medium temperature |         |         |  |
| Heat output                        | 11.2 kW | 10 kW   |  |
| El input                           | 2.38 kW | 3.33 kW |  |
| СОР                                | 4.7     | 3       |  |

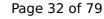
| EN 14511-4                                 |        |
|--|--------|
| Shutting off the heat transfer medium flow | naccod |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure              | passed |
| Defrost test                               | passed |
| Starting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

# Average Climate



| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 60 dB(A)        | 60 dB(A)           |

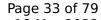
| EN 14825       |                 |                    |
|----------------|-----------------|--------------------|
|                | Low temperature | Medium temperature |
| $\eta_{s}$     | 195 %           | 136 %              |
| Prated         | 10 kW           | 10 kW              |
| SCOP           | 4.95            | 3.48               |
| Tbiv           | -7 °C           | -7 °C              |
| TOL            | -25 °C          | -25 °C             |
| Pdh Tj = -7°C  | 8.8 kW          | 8.8 kW             |
| COP Tj = -7°C  | 3.31            | 2.21               |
| Cdh Tj = -7 °C | 0.99            | 1                  |
| Pdh Tj = +2°C  | 5.7 kW          | 5.4 kW             |
| COP Tj = +2°C  | 4.61            | 3.31               |
| Cdh Tj = +2 °C | 0.99            | 0.99               |
| Pdh Tj = +7°C  | 4.9 kW          | 5.2 kW             |
| COP Tj = +7°C  | 6.68            | 4.61               |
| Cdh Tj = +7 °C | 0.98            | 0.99               |





| - The The The True True |  |
|-------------------------|--|
| 4.6 kW                  | 4.7 kW   |
| 9.1                     | 6.35   |
| 0.97                    | 0.98   |
| 8.8 kW                  | 8.8 kW   |
| 3.31                    | 2.21   |
| 8.78 kW                 | 8.78 kW  |
| 3.03                    | 2.11   |
| 60 °C                   | 60 °C  |
| 15 W                    | 15 W   |
| 15 W                    | 15 W   |
| 15 W                    | 15 W   |
| o w                     | o w  |
| Electricity             | Electricity  |
| 1.22 kW                 | 1.22 kW  |
| 4173 kWh                | 5932 kWh   |
|                         | 4.6 kW  9.1  0.97  8.8 kW  3.31  8.78 kW  3.03  60 °C  15 W  15 W  0 W  Electricity  1.22 kW |

| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 60 dB(A)        | 60 dB(A)           |





#### EN 14825

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_{s}$  | 220 %           | 154 %              |
| Prated  | 10 kW           | 10 kW              |
| SCOP  | 5.58            | 3.93               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | -25 °C          | -25 °C             |
| Pdh Tj = $+2$ °C                                      | 10 kW           | 10 kW              |
| $COP Tj = +2^{\circ}C$                                | 3.3             | 1.81               |
| Cdh Tj = +2 °C  | 1               | 1                  |
| Pdh Tj = +7°C   | 6.4 kW          | 6.4 kW             |
| $COP Tj = +7^{\circ}C$                                | 4.76            | 3.11               |
| Cdh Tj = +7 °C  | 0.99            | 0.99               |
| Pdh Tj = 12°C   | 4.7 kW          | 4.4 kW             |
| COP Tj = 12°C   | 7.12            | 5.66               |
| Cdh Tj = +12 °C                                       | 0.98            | 0.98               |
| Pdh Tj = Tbiv   | 10 kW           | 10 kW              |
| COP Tj = Tbiv   | 3.3             | 1.81               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh | 10 kW           | 10 kW              |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh   | 3.3             | 1.81               |
| WTOL  | 60 °C           | 60 °C              |



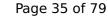


|  | <u> </u>    |             |
|--|-------------|-------------|
| Poff                                       | 15 W        | 15 W        |
| PTO  | 15 W        | 15 W        |
| PSB  | 15 W        | 15 W        |
| PCK  | o w         | o w         |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP                 | 0 kW        | 0 kW        |
| Annual energy consumption Qhe              | 2396 kWh    | 3396 kWh    |

## Domestic Hot Water (DHW)

## Average Climate

| EN 16147                        |             |  |
|---------------------------------|-------------|--|
| Declared load profile           | L           |  |
| Efficiency ηDHW                 | 148 %       |  |
| СОР                             | 3.49        |  |
| Heating up time                 | 02:06 h:min |  |
| Standby power input             | 35 W        |  |
| Reference hot water temperature | 52.5 °C     |  |
| Mixed water at 40°C             | 278         |  |





| EN 16147                        |             |  |
|---------------------------------|-------------|--|
| Declared load profile           | L           |  |
| Efficiency ηDHW                 | 161 %       |  |
| СОР                             | 3.8         |  |
| Heating up time                 | 01:43 h:min |  |
| Standby power input             | 32 W        |  |
| Reference hot water temperature | 52.5 °C     |  |
| Mixed water at 40°C             | 278 I       |  |



# **Model: PUZ-WM112VAA(-BS)**

| Configure model                     |                       |  |
|-------------------------------------|-----------------------|--|
| Model name                          | PUZ-WM112VAA(-BS)     |  |
| Application                         | Heating (medium temp) |  |
| Units                               | Outdoor               |  |
| Climate Zone                        | Warmer Climate        |  |
| Reversibility                       | No                    |  |
| Cooling mode application (optional) | n/a                   |  |

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

## Heating

| EN 14511-2                         |         |                    |
|------------------------------------|---------|--------------------|
| Low temperature Medium temperature |         | Medium temperature |
| Heat output                        | 11.2 kW | 10 kW              |
| El input                           | 2.38 kW | 3.33 kW            |
| СОР                                | 4.7     | 3                  |

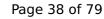
| EN 14511-4                                 |        |
|--|--------|
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure              | passed |
| Defrost test                               | passed |
| Starting and operating test                | passed |

# Average Climate



| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 60 dB(A)        | 60 dB(A)           |

| EN 14825       |                 |                    |
|----------------|-----------------|--------------------|
|                | Low temperature | Medium temperature |
| $\eta_{s}$     | 195 %           | 136 %              |
| Prated         | 10 kW           | 10 kW              |
| SCOP           | 4.95            | 3.48               |
| Tbiv           | -7 °C           | -7 °C              |
| TOL            | -25 °C          | -25 °C             |
| Pdh Tj = -7°C  | 8.8 kW          | 8.8 kW             |
| COP Tj = -7°C  | 3.31            | 2.21               |
| Cdh Tj = -7 °C | 0.99            | 1                  |
| Pdh Tj = +2°C  | 5.7 kW          | 5.4 kW             |
| COP Tj = +2°C  | 4.61            | 3.31               |
| Cdh Tj = +2 °C | 0.99            | 0.99               |
| Pdh Tj = +7°C  | 4.9 kW          | 5.2 kW             |
| COP Tj = +7°C  | 6.68            | 4.61               |
| Cdh Tj = +7 °C | 0.98            | 0.99               |





| Pdh Tj = 12°C                                       | 4.6 kW      | 4.7 kW      |
|---|-------------|-------------|
| COP Tj = 12°C                                       | 9.1         | 6.35        |
| Cdh Tj = +12 °C                                     | 0.97        | 0.98        |
| Pdh Tj = Tbiv                                       | 8.8 kW      | 8.8 kW      |
| COP Tj = Tbiv                                       | 3.31        | 2.21        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 8.78 kW     | 8.78 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.03        | 2.11        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 15 W        | 15 W        |
| РТО   | 15 W        | 15 W        |
| PSB   | 15 W        | 15 W        |
| PCK   | o w         | o w         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 1.22 kW     | 1.22 kW     |
| Annual energy consumption Qhe                       | 4173 kWh    | 5932 kWh    |

| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 60 dB(A)        | 60 dB(A)           |





#### EN 14825

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_{s}$  | 220 %           | 154 %              |
| Prated  | 10 kW           | 10 kW              |
| SCOP  | 5.58            | 3.93               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | -25 °C          | -25 °C             |
| Pdh Tj = $+2$ °C                                      | 10 kW           | 10 kW              |
| COP Tj = +2°C   | 3.3             | 1.81               |
| Cdh Tj = +2 °C  | 1               | 1                  |
| Pdh Tj = $+7^{\circ}$ C                               | 6.4 kW          | 6.4 kW             |
| $COPTj = +7^{\circ}C$                                 | 4.76            | 3.11               |
| Cdh Tj = +7 °C  | 0.99            | 0.99               |
| Pdh Tj = 12°C   | 4.7 kW          | 4.4 kW             |
| COP Tj = 12°C   | 7.12            | 5.66               |
| Cdh Tj = +12 °C                                       | 0.98            | 0.98               |
| Pdh Tj = Tbiv   | 10 kW           | 10 kW              |
| COP Tj = Tbiv   | 3.3             | 1.81               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh | 10 kW           | 10 kW              |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh   | 3.3             | 1.81               |
| WTOL  | 60 °C           | 60 °C              |



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### This information was generated by the HP KEYMARK database on 18 Mar 2022

| Poff                                       | 15 W        | 15 W        |
|--|-------------|-------------|
| PTO  | 15 W        | 15 W        |
| PSB  | 15 W        | 15 W        |
| PCK  | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP                 | 0 kW        | 0 kW        |
| Annual energy consumption Qhe              | 2396 kWh    | 3396 kWh    |



## Model: PUZ-WM112YAA(-BS) + EHPT20X-M\*D

| Configure model                     |                                 |
|-------------------------------------|---------------------------------|
| Model name                          | PUZ-WM112YAA(-BS) + EHPT20X-M*D |
| Application                         | Heating + DHW + low temp        |
| Units                               | Indoor + Outdoor                |
| Climate Zone                        | Warmer Climate                  |
| Reversibility                       | No                              |
| Cooling mode application (optional) | n/a                             |

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

## Heating

| EN 14511-2  |                 |                    |
|-------------|-----------------|--------------------|
|             | Low temperature | Medium temperature |
| Heat output | 11.2 kW         | 10 kW              |
| El input    | 2.38 kW         | 3.33 kW            |
| СОР         | 4.7             | 3                  |

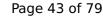
| EN 14511-4                                 |        |
|--|--------|
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure              | passed |
| Defrost test                               | passed |
| Starting and operating test                | passed |

## Average Climate



| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 60 dB(A)        | 60 dB(A)           |

| EN 14825       |                 |                    |
|----------------|-----------------|--------------------|
|                | Low temperature | Medium temperature |
| $\eta_{s}$     | 189 %           | 133 %              |
| Prated         | 10 kW           | 10 kW              |
| SCOP           | 4.81            | 3.41               |
| Tbiv           | -7 °C           | -7 °C              |
| TOL            | -25 °C          | -25 °C             |
| Pdh Tj = -7°C  | 8.8 kW          | 8.8 kW             |
| COP Tj = -7°C  | 3.31            | 2.21               |
| Cdh Tj = -7 °C | 0.99            | 0.99               |
| Pdh Tj = +2°C  | 5.7 kW          | 5.4 kW             |
| COP Tj = +2°C  | 4.55            | 3.27               |
| Cdh Tj = +2 °C | 0.99            | 0.99               |
| Pdh Tj = +7°C  | 4.9 kW          | 5.2 kW             |
| COP Tj = +7°C  | 6.68            | 4.61               |
| Cdh Tj = +7 °C | 0.98            | 0.98               |





| Pdh Tj = 12°C                                       | 4.6 kW      | 4.7 kW      |
|---|-------------|-------------|
| COP Tj = 12°C                                       | 9.1         | 6.35        |
| Cdh Tj = +12 °C                                     | 0.97        | 0.97        |
| Pdh Tj = Tbiv                                       | 8.8 kW      | 8.8 kW      |
| COP Tj = Tbiv                                       | 3.31        | 2.21        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 8.78 kW     | 8.78 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.03        | 2.11        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 22 W        | 22 W        |
| РТО   | 22 W        | 22 W        |
| PSB   | 22 W        | 22 W        |
| PCK   | o w         | o w         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 1.22 kW     | 1.22 kW     |
| Annual energy consumption Qhe                       | 4293 kWh    | 6063 kWh    |

| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 60 dB(A)        | 60 dB(A)           |





#### EN 14825

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_{s}$  | 213 %           | 150 %              |
| Prated  | 10 kW           | 10 kW              |
| SCOP  | 5.41            | 3.84               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | -25 °C          | -25 °C             |
| Pdh Tj = $+2$ °C                                      | 10 kW           | 10 kW              |
| COP Tj = +2°C   | 3.3             | 1.81               |
| Cdh Tj = +2 °C  | 1               | 1                  |
| Pdh Tj = +7°C   | 6.4 kW          | 6.4 kW             |
| $COPTj = +7^{\circ}C$                                 | 4.85            | 3.15               |
| Cdh Tj = +7 °C  | 0.99            | 0.99               |
| Pdh Tj = 12°C   | 4.7 kW          | 4.4 kW             |
| COP Tj = 12°C   | 7.22            | 5.67               |
| Cdh Tj = +12 °C                                       | 0.98            | 0.98               |
| Pdh Tj = Tbiv   | 10 kW           | 10 kW              |
| COP Tj = Tbiv   | 3.3             | 1.81               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh | 10 kW           | 10 kW              |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh   | 3.3             | 1.81               |
| WTOL  | 60 °C           | 60 °C              |





| Poff                                       | 22 W        | 22 W        |
|--|-------------|-------------|
| РТО  | 22 W        | 22 W        |
| PSB  | 22 W        | 22 W        |
| PCK  | o w         | 0 W         |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP                 | 0 kW        | 0 kW        |
| Annual energy consumption Qhe              | 2471 kWh    | 3483 kWh    |

## Domestic Hot Water (DHW)

## Average Climate

| EN 16147                        |             |
|---------------------------------|-------------|
| Declared load profile           | L           |
| Efficiency ηDHW                 | 148 %       |
| СОР                             | 3.49        |
| Heating up time                 | 02:06 h:min |
| Standby power input             | 35 W        |
| Reference hot water temperature | 52.5 °C     |
| Mixed water at 40°C             | 278         |





| EN 16147                        |             |
|---------------------------------|-------------|
| Declared load profile           | L           |
| Efficiency ηDHW                 | 161 %       |
| СОР                             | 3.8         |
| Heating up time                 | 01:43 h:min |
| Standby power input             | 32 W        |
| Reference hot water temperature | 52.5 °C     |
| Mixed water at 40°C             | 278         |

## Model: PUZ-WM112YAA(-BS) + EHPT20X-\*M\*D

| Configure model                      |                                  |
|--------------------------------------|----------------------------------|
| Model name                           | PUZ-WM112YAA(-BS) + EHPT20X-*M*D |
| Application Heating + DHW + low temp |                                  |
| Units Indoor + Outdoor               |                                  |
| Climate Zone Warmer Climate          |                                  |
| Reversibility No                     |                                  |
| Cooling mode application (optional)  | n/a                              |

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

## Heating

| EN 14511-2  |                 |                    |
|-------------|-----------------|--------------------|
|             | Low temperature | Medium temperature |
| Heat output | 11.2 kW         | 10 kW              |
| El input    | 2.38 kW         | 3.33 kW            |
| СОР         | 4.7             | 3                  |

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

## Average Climate



| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 60 dB(A)        | 60 dB(A)           |

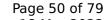
| EN 14825       |                 |                    |
|----------------|-----------------|--------------------|
|                | Low temperature | Medium temperature |
| $\eta_{s}$     | 189 %           | 133 %              |
| Prated         | 10 kW           | 10 kW              |
| SCOP           | 4.81            | 3.41               |
| Tbiv           | -7 °C           | -7 °C              |
| TOL            | -25 °C          | -25 °C             |
| Pdh Tj = -7°C  | 8.8 kW          | 8.8 kW             |
| COP Tj = -7°C  | 3.31            | 2.21               |
| Cdh Tj = -7 °C | 0.99            | 0.99               |
| Pdh Tj = +2°C  | 5.7 kW          | 5.4 kW             |
| COP Tj = +2°C  | 4.55            | 3.27               |
| Cdh Tj = +2 °C | 0.99            | 0.99               |
| Pdh Tj = +7°C  | 4.9 kW          | 5.2 kW             |
| COP Tj = +7°C  | 6.68            | 4.61               |
| Cdh Tj = +7 °C | 0.98            | 0.98               |





| Pdh Tj = 12°C                                       | 4.6 kW      | 4.7 kW      |
|---|-------------|-------------|
| COP Tj = 12°C                                       | 9.1         | 6.35        |
| Cdh Tj = +12 °C                                     | 0.97        | 0.97        |
| Pdh Tj = Tbiv                                       | 8.8 kW      | 8.8 kW      |
| COP Tj = Tbiv                                       | 3.31        | 2.21        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 8.78 kW     | 8.78 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.03        | 2.11        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 22 W        | 22 W        |
| РТО   | 22 W        | 22 W        |
| PSB   | 22 W        | 22 W        |
| PCK   | o w         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 1.22 kW     | 1.22 kW     |
| Annual energy consumption Qhe                       | 4293 kWh    | 6063 kWh    |
|   |             |             |

| EN 12102-1                         |          |          |
|------------------------------------|----------|----------|
| Low temperature Medium temperature |          |          |
| Sound power level indoor           | 40 dB(A) | 40 dB(A) |
| Sound power level outdoor          | 60 dB(A) | 60 dB(A) |





#### EN 14825

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_{s}$  | 213 %           | 150 %              |
| Prated  | 10 kW           | 10 kW              |
| SCOP  | 5.41            | 3.84               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | -25 °C          | -25 °C             |
| Pdh Tj = $+2$ °C                                      | 10 kW           | 10 kW              |
| $COP Tj = +2^{\circ}C$                                | 3.3             | 1.81               |
| Cdh Tj = +2 °C  | 1               | 1                  |
| Pdh Tj = +7°C   | 6.4 kW          | 6.4 kW             |
| $COP Tj = +7^{\circ}C$                                | 4.85            | 3.15               |
| Cdh Tj = +7 °C  | 0.99            | 0.99               |
| Pdh Tj = 12°C   | 4.7 kW          | 4.4 kW             |
| COP Tj = 12°C   | 7.22            | 5.67               |
| Cdh Tj = +12 °C                                       | 0.98            | 0.98               |
| Pdh Tj = Tbiv   | 10 kW           | 10 kW              |
| COP Tj = Tbiv   | 3.3             | 1.81               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh   | 10 kW           | 10 kW              |
| COP Tj = TOL or COP Tj = Tdesignh if TOL $<$ Tdesignh | 3.3             | 1.81               |
| WTOL  | 60 °C           | 60 °C              |





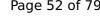
| This information was | generated by | the HP KEYMARK | database on 18 Mar 2022 |
|----------------------|--------------|----------------|-------------------------|

| Poff                                       | 22 W        | 22 W        |
|--|-------------|-------------|
| РТО  | 22 W        | 22 W        |
| PSB  | 22 W        | 22 W        |
| PCK  | o w         | 0 W         |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP                 | 0 kW        | 0 kW        |
| Annual energy consumption Qhe              | 2471 kWh    | 3483 kWh    |

## Domestic Hot Water (DHW)

## Average Climate

| EN 16147                        |             |  |
|---------------------------------|-------------|--|
| Declared load profile           | L           |  |
| Efficiency ηDHW                 | 148 %       |  |
| СОР                             | 3.49        |  |
| Heating up time                 | 02:06 h:min |  |
| Standby power input             | 35 W        |  |
| Reference hot water temperature | 52.5 °C     |  |
| Mixed water at 40°C             | 278         |  |





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| EN 16147                        |             |  |
|---------------------------------|-------------|--|
| Declared load profile           | L           |  |
| Efficiency ηDHW                 | 161 %       |  |
| СОР                             | 3.8         |  |
| Heating up time                 | 01:43 h:min |  |
| Standby power input             | 32 W        |  |
| Reference hot water temperature | 52.5 °C     |  |
| Mixed water at 40°C             | 278         |  |



## Model: PUZ-WM112YAA(-BS) + EHPX-M\*D

| Configure model                           |                       |  |
|---|-----------------------|--|
| Model name   PUZ-WM112YAA(-BS) + EHPX-M*D |                       |  |
| Application                               | Heating (medium temp) |  |
| Units                                     | Indoor + Outdoor      |  |
| Climate Zone Warmer Climate               |                       |  |
| Reversibility                             | No                    |  |
| Cooling mode application (optional)       | n/a                   |  |

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

## Heating

| EN 14511-2                         |         |         |  |
|------------------------------------|---------|---------|--|
| Low temperature Medium temperature |         |         |  |
| Heat output                        | 11.2 kW | 10 kW   |  |
| El input                           | 2.38 kW | 3.33 kW |  |
| СОР                                | 4.7     | 3       |  |

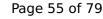
| EN 14511-4                                 |        |
|--|--------|
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure              | passed |
| Defrost test                               | passed |
| Starting and operating test                | passed |

## Average Climate



| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 60 dB(A)        | 60 dB(A)           |

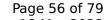
| EN 14825       |                 |                    |
|----------------|-----------------|--------------------|
|                | Low temperature | Medium temperature |
| $\eta_{s}$     | 189 %           | 133 %              |
| Prated         | 10 kW           | 10 kW              |
| SCOP           | 4.81            | 3.41               |
| Tbiv           | -7 °C           | -7 °C              |
| TOL            | -25 °C          | -25 °C             |
| Pdh Tj = -7°C  | 8.8 kW          | 8.8 kW             |
| COP Tj = -7°C  | 3.31            | 2.21               |
| Cdh Tj = -7 °C | 0.99            | 0.99               |
| Pdh Tj = +2°C  | 5.7 kW          | 5.4 kW             |
| COP Tj = +2°C  | 4.55            | 3.27               |
| Cdh Tj = +2 °C | 0.99            | 0.99               |
| Pdh Tj = +7°C  | 4.9 kW          | 5.2 kW             |
| COP Tj = +7°C  | 6.68            | 4.61               |
| Cdh Tj = +7 °C | 0.98            | 0.98               |





| Pdh Tj = 12°C                                       | 4.6 kW      | 4.7 kW      |
|---|-------------|-------------|
| COP Tj = 12°C                                       | 9.1         | 6.35        |
| Cdh Tj = +12 °C                                     | 0.97        | 0.97        |
| Pdh Tj = Tbiv                                       | 8.8 kW      | 8.8 kW      |
| COP Tj = Tbiv                                       | 3.31        | 2.21        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 8.78 kW     | 8.78 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.03        | 2.11        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 22 W        | 22 W        |
| РТО   | 22 W        | 22 W        |
| PSB   | 22 W        | 22 W        |
| PCK   | o w         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 1.22 kW     | 1.22 kW     |
| Annual energy consumption Qhe                       | 4293 kWh    | 6063 kWh    |
|   |             |             |

| EN 12102-1                |                 |                    |  |
|---------------------------|-----------------|--------------------|--|
|                           | Low temperature | Medium temperature |  |
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |  |
| Sound power level outdoor | 60 dB(A)        | 60 dB(A)           |  |





#### EN 14825

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_{s}$  | 213 %           | 150 %              |
| Prated  | 10 kW           | 10 kW              |
| SCOP  | 5.41            | 3.84               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | -25 °C          | -25 °C             |
| Pdh Tj = $+2$ °C                                      | 10 kW           | 10 kW              |
| COP Tj = +2°C   | 3.3             | 1.81               |
| Cdh Tj = +2 °C  | 1               | 1                  |
| Pdh Tj = +7°C   | 6.4 kW          | 6.4 kW             |
| $COPTj = +7^{\circ}C$                                 | 4.85            | 3.15               |
| Cdh Tj = +7 °C  | 0.99            | 0.99               |
| Pdh Tj = 12°C   | 4.7 kW          | 4.4 kW             |
| COP Tj = 12°C   | 7.22            | 5.67               |
| Cdh Tj = +12 °C                                       | 0.98            | 0.98               |
| Pdh Tj = Tbiv   | 10 kW           | 10 kW              |
| COP Tj = Tbiv   | 3.3             | 1.81               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh | 10 kW           | 10 kW              |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh   | 3.3             | 1.81               |
| WTOL  | 60 °C           | 60 °C              |



# $$\operatorname{\textit{Page}}\xspace$ 57 of 79 This information was generated by the HP KEYMARK database on 18 Mar 2022

| Poff                                       | 22 W        | 22 W        |
|--|-------------|-------------|
| РТО  | 22 W        | 22 W        |
| PSB  | 22 W        | 22 W        |
| PCK  | o w         | 0 W         |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP                 | 0 kW        | 0 kW        |
| Annual energy consumption Qhe              | 2471 kWh    | 3483 kWh    |



## Model: PUZ-WM112YAA(-BS) + EHPX-\*M\*D

| Configure model                     |                               |  |
|-------------------------------------|-------------------------------|--|
| Model name                          | PUZ-WM112YAA(-BS) + EHPX-*M*D |  |
| Application                         | Heating (medium temp)         |  |
| Units                               | Indoor + Outdoor              |  |
| Climate Zone                        | Warmer Climate                |  |
| Reversibility                       | No                            |  |
| Cooling mode application (optional) | n/a                           |  |

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

## Heating

| EN 14511-2                         |         |         |  |
|------------------------------------|---------|---------|--|
| Low temperature Medium temperature |         |         |  |
| Heat output                        | 11.2 kW | 10 kW   |  |
| El input                           | 2.38 kW | 3.33 kW |  |
| СОР                                | 4.7     | 3       |  |

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

## Average Climate



| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 60 dB(A)        | 60 dB(A)           |

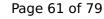
| EN 14825       |                 |                    |
|----------------|-----------------|--------------------|
|                | Low temperature | Medium temperature |
| $\eta_{s}$     | 189 %           | 133 %              |
| Prated         | 10 kW           | 10 kW              |
| SCOP           | 4.81            | 3.41               |
| Tbiv           | -7 °C           | -7 °C              |
| TOL            | -25 °C          | -25 °C             |
| Pdh Tj = -7°C  | 8.8 kW          | 8.8 kW             |
| COP Tj = -7°C  | 3.31            | 2.21               |
| Cdh Tj = -7 °C | 0.99            | 0.99               |
| Pdh Tj = +2°C  | 5.7 kW          | 5.4 kW             |
| COP Tj = +2°C  | 4.55            | 3.27               |
| Cdh Tj = +2 °C | 0.99            | 0.99               |
| Pdh Tj = +7°C  | 4.9 kW          | 5.2 kW             |
| COP Tj = +7°C  | 6.68            | 4.61               |
| Cdh Tj = +7 °C | 0.98            | 0.98               |





| Pdh Tj = 12°C                                       | 4.6 kW      | 4.7 kW      |
|---|-------------|-------------|
| COP Tj = 12°C                                       | 9.1         | 6.35        |
| Cdh Tj = +12 °C                                     | 0.97        | 0.97        |
| Pdh Tj = Tbiv                                       | 8.8 kW      | 8.8 kW      |
| COP Tj = Tbiv                                       | 3.31        | 2.21        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 8.78 kW     | 8.78 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.03        | 2.11        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 22 W        | 22 W        |
| РТО   | 22 W        | 22 W        |
| PSB   | 22 W        | 22 W        |
| PCK   | o w         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 1.22 kW     | 1.22 kW     |
| Annual energy consumption Qhe                       | 4293 kWh    | 6063 kWh    |
|   |             |             |

| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 60 dB(A)        | 60 dB(A)           |





#### EN 14825

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_{s}$  | 213 %           | 150 %              |
| Prated  | 10 kW           | 10 kW              |
| SCOP  | 5.41            | 3.84               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | -25 °C          | -25 °C             |
| Pdh Tj = $+2$ °C                                      | 10 kW           | 10 kW              |
| COP Tj = +2°C   | 3.3             | 1.81               |
| Cdh Tj = +2 °C  | 1               | 1                  |
| Pdh Tj = +7°C   | 6.4 kW          | 6.4 kW             |
| $COPTj = +7^{\circ}C$                                 | 4.85            | 3.15               |
| Cdh Tj = +7 °C  | 0.99            | 0.99               |
| Pdh Tj = 12°C   | 4.7 kW          | 4.4 kW             |
| COP Tj = 12°C   | 7.22            | 5.67               |
| Cdh Tj = +12 °C                                       | 0.98            | 0.98               |
| Pdh Tj = Tbiv   | 10 kW           | 10 kW              |
| COP Tj = Tbiv   | 3.3             | 1.81               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL $<$ Tdesignh | 10 kW           | 10 kW              |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh   | 3.3             | 1.81               |
| WTOL  | 60 °C           | 60 °C              |



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### This information was generated by the HP KEYMARK database on 18 Mar 2022

| Poff                                       | 22 W        | 22 W        |
|--|-------------|-------------|
| PTO  | 22 W        | 22 W        |
| PSB  | 22 W        | 22 W        |
| PCK  | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP                 | 0 kW        | 0 kW        |
| Annual energy consumption Qhe              | 2471 kWh    | 3483 kWh    |

## Model: PUZ-WM112YAA(-BS) + ERPT20X-M\*D

| Configure model                     |                                 |
|-------------------------------------|---------------------------------|
| Model name                          | PUZ-WM112YAA(-BS) + ERPT20X-M*D |
| Application                         | Heating + DHW + low temp        |
| Units                               | Indoor + Outdoor                |
| Climate Zone                        | Warmer Climate                  |
| Reversibility                       | Yes                             |
| Cooling mode application (optional) | n/a                             |

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

## Heating

| EN 14511-2  |                 |                    |
|-------------|-----------------|--------------------|
|             | Low temperature | Medium temperature |
| Heat output | 11.2 kW         | 10 kW              |
| El input    | 2.38 kW         | 3.33 kW            |
| СОР         | 4.7             | 3                  |

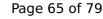
| EN 14511-4                                 |        |  |
|--|--------|--|
| Shutting off the heat transfer medium flow | passed |  |
| Complete power supply failure              | passed |  |
| Defrost test                               | passed |  |
| Starting and operating test                | passed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

## Average Climate



| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 60 dB(A)        | 60 dB(A)           |

| EN 14825                |                 |                    |
|-------------------------|-----------------|--------------------|
|                         | Low temperature | Medium temperature |
| $\eta_{S}$              | 195 %           | 136 %              |
| Prated                  | 10 kW           | 10 kW              |
| SCOP                    | 4.95            | 3.48               |
| Tbiv                    | -7 °C           | -7 °C              |
| TOL                     | -25 °C          | -25 °C             |
| Pdh Tj = $-7^{\circ}$ C | 8.8 kW          | 8.8 kW             |
| COP Tj = $-7^{\circ}$ C | 3.31            | 2.21               |
| Cdh Tj = -7 °C          | 0.99            | 0.99               |
| Pdh Tj = $+2^{\circ}$ C | 5.7 kW          | 5.4 kW             |
| COP Tj = +2°C           | 4.64            | 3.32               |
| Cdh Tj = +2 °C          | 0.99            | 0.99               |
| Pdh Tj = +7°C           | 4.9 kW          | 5.2 kW             |
| COP Tj = +7°C           | 6.68            | 4.61               |
| Cdh Tj = +7 °C          | 0.98            | 0.98               |





| Pdh Tj = 12°C                                       | 4.6 kW      | 4.7 kW      |
|---|-------------|-------------|
| COP Tj = 12°C                                       | 9.1         | 6.35        |
| Cdh Tj = +12 °C                                     | 0.97        | 0.97        |
| Pdh Tj = Tbiv                                       | 8.8 kW      | 8.8 kW      |
| COP Tj = Tbiv                                       | 3.31        | 2.21        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 8.78 kW     | 8.78 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.03        | 2.11        |
| WTOL  | 60 °C       | 60 °C       |
| Poff  | 22 W        | 22 W        |
| РТО   | 22 W        | 22 W        |
| PSB   | 22 W        | 22 W        |
| PCK   | o w         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 1.22 kW     | 1.22 kW     |
| Annual energy consumption Qhe                       | 4171 kWh    | 5936 kWh    |
|   |             |             |

| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 60 dB(A)        | 60 dB(A)           |





#### EN 14825

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_{s}$  | 220 %           | 154 %              |
| Prated  | 10 kW           | 10 kW              |
| SCOP  | 5.58            | 3.93               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | -25 °C          | -25 °C             |
| Pdh Tj = +2°C                                       | 10 kW           | 10 kW              |
| COP Tj = +2°C                                       | 3.3             | 1.81               |
| Cdh Tj = +2 °C                                      | 1               | 1                  |
| Pdh Tj = +7°C                                       | 6.4 kW          | 6.4 kW             |
| $COP Tj = +7^{\circ}C$                              | 4.78            | 3.12               |
| Cdh Tj = +7 °C                                      | 0.99            | 0.99               |
| Pdh Tj = 12°C                                       | 4.7 kW          | 4.4 kW             |
| COP Tj = 12°C                                       | 7.2             | 5.67               |
| Cdh Tj = +12 °C                                     | 0.98            | 0.98               |
| Pdh Tj = Tbiv                                       | 10 kW           | 10 kW              |
| COP Tj = Tbiv                                       | 3.3             | 1.81               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 10 kW           | 10 kW              |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.3             | 1.81               |
| WTOL  | 60 °C           | 60 °C              |



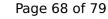


| Poff                                       | 22 W        | 22 W        |
|--|-------------|-------------|
| РТО  | 22 W        | 22 W        |
| PSB  | 22 W        | 22 W        |
| PCK  | o w         | 0 W         |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP                 | 0 kW        | 0 kW        |
| Annual energy consumption Qhe              | 2392 kWh    | 3401 kWh    |

## Domestic Hot Water (DHW)

## Average Climate

| EN 16147                        |             |  |
|---------------------------------|-------------|--|
| Declared load profile           | L           |  |
| Efficiency ηDHW                 | 148 %       |  |
| СОР                             | 3.49        |  |
| Heating up time                 | 02:06 h:min |  |
| Standby power input             | 35 W        |  |
| Reference hot water temperature | 52.5 °C     |  |
| Mixed water at 40°C             | 278         |  |





| EN 16147                        |             |  |
|---------------------------------|-------------|--|
| Declared load profile           | L           |  |
| Efficiency ηDHW                 | 161 %       |  |
| СОР                             | 3.8         |  |
| Heating up time                 | 01:43 h:min |  |
| Standby power input             | 32 W        |  |
| Reference hot water temperature | 52.5 °C     |  |
| Mixed water at 40°C             | 278 I       |  |



## Model: PUZ-WM112YAA(-BS) + ERPT20X-\*M\*D

| Configure model                             |  |  |
|---|--|--|
| Model name PUZ-WM112YAA(-BS) + ERPT20X-*M*D |  |  |
| Application Heating + DHW + low temp        |  |  |
| Units Indoor + Outdoor                      |  |  |
| Climate Zone Warmer Climate                 |  |  |
| Reversibility Yes                           |  |  |
| Cooling mode application (optional) n/a     |  |  |

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

## Heating

| EN 14511-2  |                 |                    |
|-------------|-----------------|--------------------|
|             | Low temperature | Medium temperature |
| Heat output | 11.2 kW         | 10 kW              |
| El input    | 2.38 kW         | 3.33 kW            |
| СОР         | 4.7             | 3                  |

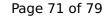
| EN 14511-4                                 |        |
|--|--------|
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure              | passed |
| Defrost test                               | passed |
| Starting and operating test                | passed |

## Average Climate



| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 60 dB(A)        | 60 dB(A)           |

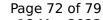
| EN 14825                |                 |                    |
|-------------------------|-----------------|--------------------|
|                         | Low temperature | Medium temperature |
| $\eta_{S}$              | 195 %           | 136 %              |
| Prated                  | 10 kW           | 10 kW              |
| SCOP                    | 4.95            | 3.48               |
| Tbiv                    | -7 °C           | -7 °C              |
| TOL                     | -25 °C          | -25 °C             |
| Pdh Tj = $-7^{\circ}$ C | 8.8 kW          | 8.8 kW             |
| COP Tj = $-7^{\circ}$ C | 3.31            | 2.21               |
| Cdh Tj = -7 °C          | 0.99            | 0.99               |
| Pdh Tj = $+2^{\circ}$ C | 5.7 kW          | 5.4 kW             |
| COP Tj = +2°C           | 4.64            | 3.32               |
| Cdh Tj = +2 °C          | 0.99            | 0.99               |
| Pdh Tj = +7°C           | 4.9 kW          | 5.2 kW             |
| COP Tj = +7°C           | 6.68            | 4.61               |
| Cdh Tj = +7 °C          | 0.98            | 0.98               |





| This will all all a significant was generated by the first the dutabase on 10 had 2021 |  |  |  |
|--|--|--|--|
| 4.6 kW   | 4.7 kW   |  |  |
| 9.1  | 6.35   |  |  |
| 0.97   | 0.97   |  |  |
| 8.8 kW   | 8.8 kW   |  |  |
| 3.31   | 2.21   |  |  |
| 8.78 kW  | 8.78 kW  |  |  |
| 3.03   | 2.11   |  |  |
| 60 °C  | 60 °C  |  |  |
| 22 W   | 22 W   |  |  |
| 22 W   | 22 W   |  |  |
| 22 W   | 22 W   |  |  |
| o w  | o w  |  |  |
| Electricity  | Electricity  |  |  |
| 1.22 kW  | 1.22 kW  |  |  |
| 4171 kWh   | 5936 kWh   |  |  |
|  | 4.6 kW  9.1  0.97  8.8 kW  3.31  8.78 kW  3.03  60 °C  22 W  22 W  22 W  1.22 kW |  |  |

| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 60 dB(A)        | 60 dB(A)           |





#### EN 14825

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_{s}$  | 220 %           | 154 %              |
| Prated  | 10 kW           | 10 kW              |
| SCOP  | 5.58            | 3.93               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | -25 °C          | -25 °C             |
| Pdh Tj = +2°C                                       | 10 kW           | 10 kW              |
| COP Tj = +2°C                                       | 3.3             | 1.81               |
| Cdh Tj = +2 °C                                      | 1               | 1                  |
| Pdh Tj = +7°C                                       | 6.4 kW          | 6.4 kW             |
| $COPTj = +7^{\circ}C$                               | 4.78            | 3.12               |
| Cdh Tj = +7 °C                                      | 0.99            | 0.99               |
| Pdh Tj = 12°C                                       | 4.7 kW          | 4.4 kW             |
| COP Tj = 12°C                                       | 7.2             | 5.67               |
| Cdh Tj = +12 °C                                     | 0.98            | 0.98               |
| Pdh Tj = Tbiv                                       | 10 kW           | 10 kW              |
| COP Tj = Tbiv                                       | 3.3             | 1.81               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 10 kW           | 10 kW              |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.3             | 1.81               |
| WTOL  | 60 °C           | 60 °C              |



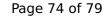


| Poff                                       | 22 W        | 22 W        |
|--|-------------|-------------|
| PTO  | 22 W        | 22 W        |
| PSB  | 22 W        | 22 W        |
| PCK  | o w         | o w         |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP                 | 0 kW        | 0 kW        |
| Annual energy consumption Qhe              | 2392 kWh    | 3401 kWh    |

## Domestic Hot Water (DHW)

## Average Climate

| EN 16147                        |             |
|---------------------------------|-------------|
| Declared load profile           | L           |
| Efficiency ηDHW                 | 148 %       |
| СОР                             | 3.49        |
| Heating up time                 | 02:06 h:min |
| Standby power input             | 35 W        |
| Reference hot water temperature | 52.5 °C     |
| Mixed water at 40°C             | 278         |





| EN 16147                        |             |  |
|---------------------------------|-------------|--|
| Declared load profile           | L           |  |
| Efficiency ηDHW                 | 161 %       |  |
| СОР                             | 3.8         |  |
| Heating up time                 | 01:43 h:min |  |
| Standby power input             | 32 W        |  |
| Reference hot water temperature | 52.5 °C     |  |
| Mixed water at 40°C             | 278 I       |  |



## **Model: PUZ-WM112YAA(-BS)**

| Configure model                     |                       |  |
|-------------------------------------|-----------------------|--|
| Model name PUZ-WM112YAA(-BS)        |                       |  |
| Application                         | Heating (medium temp) |  |
| Units                               | Outdoor               |  |
| Climate Zone                        | Warmer Climate        |  |
| Reversibility                       | No                    |  |
| Cooling mode application (optional) | n/a                   |  |

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

## Heating

| EN 14511-2                         |         |         |
|------------------------------------|---------|---------|
| Low temperature Medium temperature |         |         |
| Heat output                        | 11.2 kW | 10 kW   |
| El input                           | 2.38 kW | 3.33 kW |
| СОР                                | 4.7     | 3       |

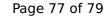
| EN 14511-4                                 |        |
|--|--------|
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure              | passed |
| Defrost test                               | passed |
| Starting and operating test                | passed |

## Average Climate



| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 60 dB(A)        | 60 dB(A)           |

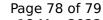
| EN 14825                |        |                      |  |
|-------------------------|--------|----------------------|--|
| Low temperatur          |        | e Medium temperature |  |
| $\eta_{S}$              | 195 %  | 136 %                |  |
| Prated                  | 10 kW  | 10 kW                |  |
| SCOP                    | 4.95   | 3.48                 |  |
| Tbiv                    | -7 °C  | -7 °C                |  |
| TOL                     | -25 °C | -25 °C               |  |
| Pdh Tj = $-7^{\circ}$ C | 8.8 kW | 8.8 kW               |  |
| COP Tj = $-7^{\circ}$ C | 3.31   | 2.21                 |  |
| Cdh Tj = -7 °C          | 0.99   | 0.99                 |  |
| Pdh Tj = $+2^{\circ}$ C | 5.7 kW | 5.4 kW               |  |
| COP Tj = +2°C           | 4.64   | 3.32                 |  |
| Cdh Tj = +2 °C          | 0.99   | 0.99                 |  |
| Pdh Tj = +7°C           | 4.9 kW | 5.2 kW               |  |
| COP Tj = +7°C           | 6.68   | 4.61                 |  |
| Cdh Tj = +7 °C          | 0.98   | 0.98                 |  |





| - The The The True True |  |
|-------------------------|--|
| 4.6 kW                  | 4.7 kW   |
| 9.1                     | 6.35   |
| 0.97                    | 0.97   |
| 8.8 kW                  | 8.8 kW   |
| 3.31                    | 2.21   |
| 8.78 kW                 | 8.78 kW  |
| 3.03                    | 2.11   |
| 60 °C                   | 60 °C  |
| 22 W                    | 22 W   |
| 22 W                    | 22 W   |
| 22 W                    | 22 W   |
| o w                     | o w  |
| Electricity             | Electricity  |
| 1.22 kW                 | 1.22 kW  |
| 4171 kWh                | 5936 kWh   |
|                         | 4.6 kW  9.1  0.97  8.8 kW  3.31  8.78 kW  3.03  60 °C  22 W  22 W  22 W  1.22 kW |

| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 40 dB(A)        | 40 dB(A)           |
| Sound power level outdoor | 60 dB(A)        | 60 dB(A)           |





#### EN 14825

|   | Low temperature | Medium temperature |
|---|-----------------|--------------------|
| $\eta_{s}$  | 220 %           | 154 %              |
| Prated  | 10 kW           | 10 kW              |
| SCOP  | 5.58            | 3.93               |
| Tbiv  | 2 °C            | 2 °C               |
| TOL   | -25 °C          | -25 °C             |
| Pdh Tj = +2°C                                       | 10 kW           | 10 kW              |
| COP Tj = +2°C                                       | 3.3             | 1.81               |
| Cdh Tj = +2 °C                                      | 1               | 1                  |
| Pdh Tj = +7°C                                       | 6.4 kW          | 6.4 kW             |
| $COP Tj = +7^{\circ}C$                              | 4.78            | 3.12               |
| Cdh Tj = +7 °C                                      | 0.99            | 0.99               |
| Pdh Tj = 12°C                                       | 4.7 kW          | 4.4 kW             |
| COP Tj = 12°C                                       | 7.2             | 5.67               |
| Cdh Tj = +12 °C                                     | 0.98            | 0.98               |
| Pdh Tj = Tbiv                                       | 10 kW           | 10 kW              |
| COP Tj = Tbiv                                       | 3.3             | 1.81               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 10 kW           | 10 kW              |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.3             | 1.81               |
| WTOL  | 60 °C           | 60 °C              |



# $$\operatorname{\textit{Page}}\ 79$$ of 79 This information was generated by the HP KEYMARK database on 18 Mar 2022

| Poff                                       | 22 W        | 22 W        |
|--|-------------|-------------|
| PTO  | 22 W        | 22 W        |
| PSB  | 22 W        | 22 W        |
| PCK  | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP                 | 0 kW        | 0 kW        |
| Annual energy consumption Qhe              | 2392 kWh    | 3401 kWh    |