

## Subtype Ecodan Power Inverter (TR) 14 + 200F AA

|                     |                                                                                   |
|---------------------|-----------------------------------------------------------------------------------|
| Certificate Holder  | Mitsubishi Electric Air Conditioning Systems Europe LTD                           |
| Address             | Nettlehill Road, Houston Industrial Estate                                        |
| ZIP                 | EH54 5EQ                                                                          |
| City                | Livingston                                                                        |
| Country             | GB                                                                                |
| Certification Body  | SZU - Strojirensky zkusebni ustav (Engineering Test Institute, Public Enterprise) |
| Subtype title       | Ecodan Power Inverter (TR) 14 + 200F AA                                           |
| Registration number | 037-0146-23                                                                       |
| Heat Pump Type      | Outdoor Air/Water                                                                 |
| Refrigerant         | R32                                                                               |
| Mass of Refrigerant | 1.8 kg                                                                            |
| Certification Date  | 05.12.2023                                                                        |
| Testing basis       | HP Keymark scheme rules rev. no. 11                                               |

## Model PUZ-SWM140VAA + ERST20F-\*M\*E

|                                     |                              |
|-------------------------------------|------------------------------|
| Model name                          | PUZ-SWM140VAA + ERST20F-*M*E |
| Application                         | Heating + DHW + low temp     |
| Units                               | Indoor, Outdoor              |
| Climate zone (for heating)          | n/a                          |
| Heat Source                         | Outdoor Air                  |
| Reversibility                       | Yes                          |
| Cooling mode application (optional) | +7°C/12°C, +18°C/+23°C       |
| Any additional heat sources         | n/a                          |

## General data

|                  |             |
|------------------|-------------|
| Power supply     | 1x230V 50Hz |
| Off-peak product | n/a         |

## Outdoor Air/Water

### EN 16147 | Average Climate

|                                 |            |
|---------------------------------|------------|
| Declared load profile           | L          |
| Efficiency $\eta_{DHW}$         | 131 %      |
| COP                             | 3.09       |
| Heating up time                 | 1:45 h:min |
| Standby power input             | 43.7 W     |
| Reference hot water temperature | 52.5 °C    |
| Mixed water at 40°C             | 278 l      |

### EN 14511-4 | Heating

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

### EN 14511-2 | Heating

|             | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 12 kW           | 7 kW               |
| El input    | 2.52 kW         | 2.59 kW            |
| COP         | 4.77            | 2.7                |

### EN 14511-2 | Cooling

|                  | +7°C/+12°C | +18°C/+23°C |
|------------------|------------|-------------|
| El input         | 4.77 kW    | 3.73 kW     |
| Cooling capacity | 12.5       | 14          |
| EER              | 2.62       | 3.75        |

### EN 12102-1 | Average Climate

|  | Low temperature | Medium temperature |
|--|-----------------|--------------------|
|--|-----------------|--------------------|

|                           |          |          |
|---------------------------|----------|----------|
| Sound power level indoor  | 41 dB(A) | 41 dB(A) |
| Sound power level outdoor | 58 dB(A) | 58 dB(A) |

#### EN 14825 | Average Climate

|                                                     | Low temperature | Medium temperature |
|-----------------------------------------------------|-----------------|--------------------|
| $\eta_s$                                            | 178 %           | 136 %              |
| Prated                                              | 14 kW           | 14 kW              |
| SCOP                                                | 4.51            | 3.47               |
| Tbiv                                                | -7 °C           | -7 °C              |
| TOL                                                 | -10 °C          | -10 °C             |
| Pdh Tj = -7°C                                       | 12.4 kW         | 12.4 kW            |
| COP Tj = -7°C                                       | 2.7             | 1.98               |
| Cdh Tj = -7 °C                                      | 0.997           | 0.998              |
| Pdh Tj = +2°C                                       | 7.6 kW          | 7.5 kW             |
| COP Tj = +2°C                                       | 4.54            | 3.43               |
| Cdh Tj = +2 °C                                      | 0.991           | 0.993              |
| Pdh Tj = +7°C                                       | 6.4 kW          | 6.3 kW             |
| COP Tj = +7°C                                       | 5.91            | 4.61               |
| Cdh Tj = +7 °C                                      | 0.986           | 0.989              |
| Pdh Tj = 12°C                                       | 4.1 kW          | 3.9 kW             |
| COP Tj = 12°C                                       | 7.03            | 6.28               |
| Cdh Tj = +12 °C                                     | 0.974           | 0.976              |
| Pdh Tj = Tbiv                                       | 12.4 kW         | 12.4 kW            |
| COP Tj = Tbiv                                       | 2.7             | 1.98               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 11 kW           | 11 kW              |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.4             | 1.75               |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.997           | 0.998              |
| WTOL                                                | 70 °C           | 70 °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                          | 3 kW            | 3 kW               |
| Annual energy consumption Qhe                       | 6407 kWh        | 8346 kWh           |

#### EN 14825 | Cooling

|                | +7°C/+12°C | +18°C/+23°C |
|----------------|------------|-------------|
| Pdesignc       | 12.5 kW    | 14 kW       |
| SEER           | 3.61       | 4.9         |
| Pdc Tj = 35°C  | 12.5 kW    | 14 kW       |
| EER Tj = 35°C  | 2.62       | 3.75        |
| Cdc Tj = 35 °C | 0.997      | 0.996       |

|                               |          |          |
|-------------------------------|----------|----------|
| Pdc Tj = 30°C                 | 9.21 kW  | 10.32 kW |
| EER Tj = 30°C                 | 3.47     | 4.93     |
| Cdc Tj = 30 °C                | 0.994    | 0.993    |
| Pdc Tj = 25°C                 | 6 kW     | 6.63 kW  |
| EER Tj = 25°C                 | 4.2      | 5.1      |
| Cdc Tj = 25 °C                | 0.99     | 0.988    |
| Pdc Tj = 20°C                 | 3.7 kW   | 4.7 kW   |
| EER Tj = 20°C                 | 3.49     | 5.4      |
| Cdc Tj = 20 °C                | 0.986    | 0.983    |
| Poff                          | 15 W     | 15 W     |
| PTO                           | 15 W     | 15 W     |
| PSB                           | 15 W     | 15 W     |
| PCK                           | 0 W      | 0 W      |
| Annual energy consumption Qce | 2080 kWh | 1714 kWh |

## Model PUZ-SWM140YAA + ERST20F-\*M\*E

|                                     |                              |
|-------------------------------------|------------------------------|
| Model name                          | PUZ-SWM140YAA + ERST20F-*M*E |
| Application                         | Heating + DHW + low temp     |
| Units                               | Indoor, Outdoor              |
| Climate zone (for heating)          | n/a                          |
| Heat Source                         | Outdoor Air                  |
| Reversibility                       | Yes                          |
| Cooling mode application (optional) | +7°C/12°C, +18°C/+23°C       |
| Any additional heat sources         | n/a                          |

## General data

|                  |             |
|------------------|-------------|
| Power supply     | 3x400V 50Hz |
| Off-peak product | n/a         |

## Outdoor Air/Water

## EN 16147 | Average Climate

|                                 |            |
|---------------------------------|------------|
| Declared load profile           | L          |
| Efficiency $\eta_{DHW}$         | 131 %      |
| COP                             | 3.09       |
| Heating up time                 | 1:45 h:min |
| Standby power input             | 43.7 W     |
| Reference hot water temperature | 52.5 °C    |
| Mixed water at 40°C             | 278 l      |

## EN 14511-4 | Heating

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

## EN 14511-2 | Heating

|             | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 12 kW           | 7 kW               |
| El input    | 2.52 kW         | 2.59 kW            |
| COP         | 4.77            | 2.7                |

## EN 14511-2 | Cooling

|                  | +7°C/+12°C | +18°C/+23°C |
|------------------|------------|-------------|
| El input         | 4.77 kW    | 3.73 kW     |
| Cooling capacity | 12.5       | 14          |
| EER              | 2.62       | 3.75        |

## EN 12102-1 | Average Climate

|  | Low temperature | Medium temperature |
|--|-----------------|--------------------|
|--|-----------------|--------------------|

|                           |          |          |
|---------------------------|----------|----------|
| Sound power level indoor  | 41 dB(A) | 41 dB(A) |
| Sound power level outdoor | 58 dB(A) | 58 dB(A) |

#### EN 14825 | Average Climate

|                                                     | Low temperature | Medium temperature |
|-----------------------------------------------------|-----------------|--------------------|
| $\eta_s$                                            | 177 %           | 135 %              |
| Prated                                              | 14 kW           | 14 kW              |
| SCOP                                                | 4.51            | 3.46               |
| Tbiv                                                | -7 °C           | -7 °C              |
| TOL                                                 | -10 °C          | -10 °C             |
| Pdh Tj = -7°C                                       | 12.4 kW         | 12.4 kW            |
| COP Tj = -7°C                                       | 2.7             | 1.98               |
| Cdh Tj = -7 °C                                      | 0.995           | 0.996              |
| Pdh Tj = +2°C                                       | 7.6 kW          | 7.5 kW             |
| COP Tj = +2°C                                       | 4.54            | 3.43               |
| Cdh Tj = +2 °C                                      | 0.987           | 0.99               |
| Pdh Tj = +7°C                                       | 6.4 kW          | 6.3 kW             |
| COP Tj = +7°C                                       | 5.91            | 4.61               |
| Cdh Tj = +7 °C                                      | 0.98            | 0.984              |
| Pdh Tj = 12°C                                       | 4.1 kW          | 3.9 kW             |
| COP Tj = 12°C                                       | 7.03            | 6.28               |
| Cdh Tj = +12 °C                                     | 0.962           | 0.965              |
| Pdh Tj = Tbiv                                       | 12.4 kW         | 12.4 kW            |
| COP Tj = Tbiv                                       | 2.7             | 1.98               |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 11 kW           | 11 kW              |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.4             | 1.75               |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.995           | 0.997              |
| WTOL                                                | 70 °C           | 70 °C              |
| 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                          | 3 kW            | 3 kW               |
| Annual energy consumption Qhe                       | 6415 kWh        | 8354 kWh           |

#### EN 14825 | Cooling

|                | +7°C/+12°C | +18°C/+23°C |
|----------------|------------|-------------|
| Pdesignc       | 12.5 kW    | 14 kW       |
| SEER           | 3.58       | 4.85        |
| Pdc Tj = 35°C  | 12.5 kW    | 14 kW       |
| EER Tj = 35°C  | 2.62       | 3.75        |
| Cdc Tj = 35 °C | 0.995      | 0.994       |

|                               |          |          |
|-------------------------------|----------|----------|
| Pdc Tj = 30°C                 | 9.21 kW  | 10.32 kW |
| EER Tj = 30°C                 | 3.47     | 4.93     |
| Cdc Tj = 30 °C                | 0.992    | 0.989    |
| Pdc Tj = 25°C                 | 6 kW     | 6.63 kW  |
| EER Tj = 25°C                 | 4.2      | 5.1      |
| Cdc Tj = 25 °C                | 0.985    | 0.983    |
| Pdc Tj = 20°C                 | 3.7 kW   | 4.7 kW   |
| EER Tj = 20°C                 | 3.49     | 5.4      |
| Cdc Tj = 20 °C                | 0.979    | 0.975    |
| Poff                          | 22 W     | 22 W     |
| PTO                           | 22 W     | 22 W     |
| PSB                           | 22 W     | 22 W     |
| PCK                           | 0 W      | 0 W      |
| Annual energy consumption Qce | 2095 kWh | 1731 kWh |

## Model PUZ-SWM140VAA + ERSF-M\*E

|                                     |                          |
|-------------------------------------|--------------------------|
| Model name                          | PUZ-SWM140VAA + ERSF-M*E |
| Application                         | Heating (medium temp)    |
| Units                               | Indoor, Outdoor          |
| Climate zone (for heating)          | n/a                      |
| Heat Source                         | Outdoor Air              |
| Reversibility                       | Yes                      |
| Cooling mode application (optional) | +7°C/12°C, +18°C/+23°C   |
| Any additional heat sources         | n/a                      |

## General data

|                  |             |
|------------------|-------------|
| Power supply     | 1x230V 50Hz |
| Off-peak product | n/a         |

## Outdoor Air/Water

### EN 14511-4 | Heating

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

### EN 14511-2 | Heating

|             | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 12 kW           | 7 kW               |
| El input    | 2.52 kW         | 2.59 kW            |
| COP         | 4.77            | 2.7                |

### EN 14511-2 | Cooling

|                  | +7°C/+12°C | +18°C/+23°C |
|------------------|------------|-------------|
| El input         | 4.77 kW    | 3.73 kW     |
| Cooling capacity | 12.5       | 14          |
| EER              | 2.62       | 3.75        |

### EN 12102-1 | Average Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |
| Sound power level outdoor | 58 dB(A)        | 58 dB(A)           |

### EN 14825 | Average Climate

|          | Low temperature | Medium temperature |
|----------|-----------------|--------------------|
| $\eta_s$ | 178 %           | 136 %              |
| Prated   | 14 kW           | 14 kW              |
| SCOP     | 4.51            | 3.47               |
| Tbiv     | -7 °C           | -7 °C              |

|                                                     |             |             |
|-----------------------------------------------------|-------------|-------------|
| TOL                                                 | -10 °C      | -10 °C      |
| Pdh Tj = -7°C                                       | 12.4 kW     | 12.4 kW     |
| COP Tj = -7°C                                       | 2.7         | 1.98        |
| Cdh Tj = -7 °C                                      | 0.997       | 0.998       |
| Pdh Tj = +2°C                                       | 7.6 kW      | 7.5 kW      |
| COP Tj = +2°C                                       | 4.54        | 3.43        |
| Cdh Tj = +2 °C                                      | 0.991       | 0.993       |
| Pdh Tj = +7°C                                       | 6.4 kW      | 6.3 kW      |
| COP Tj = +7°C                                       | 5.91        | 4.61        |
| Cdh Tj = +7 °C                                      | 0.986       | 0.989       |
| Pdh Tj = 12°C                                       | 4.1 kW      | 3.9 kW      |
| COP Tj = 12°C                                       | 7.03        | 6.28        |
| Cdh Tj = +12 °C                                     | 0.974       | 0.976       |
| Pdh Tj = Tbiv                                       | 12.4 kW     | 12.4 kW     |
| COP Tj = Tbiv                                       | 2.7         | 1.98        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 11 kW       | 11 kW       |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.4         | 1.75        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.997       | 0.998       |
| WTOL                                                | 70 °C       | 70 °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                          | 3 kW        | 3 kW        |
| Annual energy consumption Qhe                       | 6407 kWh    | 8346 kWh    |

#### EN 14825 | Cooling

|                |            |             |
|----------------|------------|-------------|
|                | +7°C/+12°C | +18°C/+23°C |
| Pdesignc       | 12.5 kW    | 14 kW       |
| SEER           | 3.61       | 4.9         |
| Pdc Tj = 35°C  | 12.5 kW    | 14 kW       |
| EER Tj = 35°C  | 2.62       | 3.75        |
| Cdc Tj = 35 °C | 0.997      | 0.996       |
| Pdc Tj = 30°C  | 9.21 kW    | 10.32 kW    |
| EER Tj = 30°C  | 3.47       | 4.93        |
| Cdc Tj = 30 °C | 0.994      | 0.993       |
| Pdc Tj = 25°C  | 6 kW       | 6.63 kW     |
| EER Tj = 25°C  | 4.2        | 5.1         |
| Cdc Tj = 25 °C | 0.99       | 0.988       |
| Pdc Tj = 20°C  | 3.7 kW     | 4.7 kW      |
| EER Tj = 20°C  | 3.49       | 5.4         |
| Cdc Tj = 20 °C | 0.986      | 0.983       |

|                               |          |          |
|-------------------------------|----------|----------|
| Poff                          | 15 W     | 15 W     |
| PTO                           | 15 W     | 15 W     |
| PSB                           | 15 W     | 15 W     |
| PCK                           | 0 W      | 0 W      |
| Annual energy consumption Qce | 2080 kWh | 1714 kWh |

## Model PUZ-SWM140YAA + ERSF-M\*E

|                                     |                          |
|-------------------------------------|--------------------------|
| Model name                          | PUZ-SWM140YAA + ERSF-M*E |
| Application                         | Heating (medium temp)    |
| Units                               | Indoor, Outdoor          |
| Climate zone (for heating)          | n/a                      |
| Heat Source                         | Outdoor Air              |
| Reversibility                       | Yes                      |
| Cooling mode application (optional) | +7°C/12°C, +18°C/+23°C   |
| Any additional heat sources         | n/a                      |

## General data

|                  |             |
|------------------|-------------|
| Power supply     | 3x400V 50Hz |
| Off-peak product | n/a         |

## Outdoor Air/Water

### EN 14511-4 | Heating

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

### EN 14511-2 | Heating

|             | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 12 kW           | 7 kW               |
| El input    | 2.52 kW         | 2.59 kW            |
| COP         | 4.77            | 2.7                |

### EN 14511-2 | Cooling

|                  | +7°C/+12°C | +18°C/+23°C |
|------------------|------------|-------------|
| El input         | 4.77 kW    | 3.73 kW     |
| Cooling capacity | 12.5       | 14          |
| EER              | 2.62       | 3.75        |

### EN 12102-1 | Average Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |
| Sound power level outdoor | 58 dB(A)        | 58 dB(A)           |

### EN 14825 | Average Climate

|          | Low temperature | Medium temperature |
|----------|-----------------|--------------------|
| $\eta_s$ | 177 %           | 135 %              |
| Prated   | 14 kW           | 14 kW              |
| SCOP     | 4.51            | 3.46               |
| Tbiv     | -7 °C           | -7 °C              |

|                                                     |             |             |
|-----------------------------------------------------|-------------|-------------|
| TOL                                                 | -10 °C      | -10 °C      |
| Pdh Tj = -7°C                                       | 12.4 kW     | 12.4 kW     |
| COP Tj = -7°C                                       | 2.7         | 1.98        |
| Cdh Tj = -7 °C                                      | 0.995       | 0.996       |
| Pdh Tj = +2°C                                       | 7.6 kW      | 7.5 kW      |
| COP Tj = +2°C                                       | 4.54        | 3.43        |
| Cdh Tj = +2 °C                                      | 0.987       | 0.99        |
| Pdh Tj = +7°C                                       | 6.4 kW      | 6.3 kW      |
| COP Tj = +7°C                                       | 5.91        | 4.61        |
| Cdh Tj = +7 °C                                      | 0.98        | 0.984       |
| Pdh Tj = 12°C                                       | 4.1 kW      | 3.9 kW      |
| COP Tj = 12°C                                       | 7.03        | 6.28        |
| Cdh Tj = +12 °C                                     | 0.962       | 0.965       |
| Pdh Tj = Tbiv                                       | 12.4 kW     | 12.4 kW     |
| COP Tj = Tbiv                                       | 2.7         | 1.98        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 11 kW       | 11 kW       |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.4         | 1.75        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.995       | 0.997       |
| WTOL                                                | 70 °C       | 70 °C       |
| 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                          | 3 kW        | 3 kW        |
| Annual energy consumption Qhe                       | 6415 kWh    | 8354 kWh    |

#### EN 14825 | Cooling

|                |            |             |
|----------------|------------|-------------|
|                | +7°C/+12°C | +18°C/+23°C |
| Pdesignc       | 12.5 kW    | 14 kW       |
| SEER           | 3.58       | 4.85        |
| Pdc Tj = 35°C  | 12.5 kW    | 14 kW       |
| EER Tj = 35°C  | 2.62       | 3.75        |
| Cdc Tj = 35 °C | 0.995      | 0.994       |
| Pdc Tj = 30°C  | 9.21 kW    | 10.32 kW    |
| EER Tj = 30°C  | 3.47       | 4.93        |
| Cdc Tj = 30 °C | 0.992      | 0.989       |
| Pdc Tj = 25°C  | 6 kW       | 6.63 kW     |
| EER Tj = 25°C  | 4.2        | 5.1         |
| Cdc Tj = 25 °C | 0.985      | 0.983       |
| Pdc Tj = 20°C  | 3.7 kW     | 4.7 kW      |
| EER Tj = 20°C  | 3.49       | 5.4         |
| Cdc Tj = 20 °C | 0.979      | 0.975       |

|                               |          |          |
|-------------------------------|----------|----------|
| Poff                          | 22 W     | 22 W     |
| PTO                           | 22 W     | 22 W     |
| PSB                           | 22 W     | 22 W     |
| PCK                           | 0 W      | 0 W      |
| Annual energy consumption Qce | 2095 kWh | 1731 kWh |

## Model PUZ-SWM140VAA + ERSF-\*M\*E

|                                     |                           |
|-------------------------------------|---------------------------|
| Model name                          | PUZ-SWM140VAA + ERSF-*M*E |
| Application                         | Heating (medium temp)     |
| Units                               | Indoor, Outdoor           |
| Climate zone (for heating)          | n/a                       |
| Heat Source                         | Outdoor Air               |
| Reversibility                       | Yes                       |
| Cooling mode application (optional) | +7°C/12°C, +18°C/+23°C    |
| Any additional heat sources         | n/a                       |

## General data

|                  |             |
|------------------|-------------|
| Power supply     | 1x230V 50Hz |
| Off-peak product | n/a         |

## Outdoor Air/Water

## EN 14511-4 | Heating

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

## EN 14511-2 | Heating

|             | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 12 kW           | 7 kW               |
| El input    | 2.52 kW         | 2.59 kW            |
| COP         | 4.77            | 2.7                |

## EN 14511-2 | Cooling

|                  | +7°C/+12°C | +18°C/+23°C |
|------------------|------------|-------------|
| El input         | 4.77 kW    | 3.73 kW     |
| Cooling capacity | 12.5       | 14          |
| EER              | 2.62       | 3.75        |

## EN 12102-1 | Average Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |
| Sound power level outdoor | 58 dB(A)        | 58 dB(A)           |

## EN 14825 | Average Climate

|          | Low temperature | Medium temperature |
|----------|-----------------|--------------------|
| $\eta_s$ | 178 %           | 136 %              |
| Prated   | 14 kW           | 14 kW              |
| SCOP     | 4.51            | 3.47               |
| Tbiv     | -7 °C           | -7 °C              |

|                                                     |             |             |
|-----------------------------------------------------|-------------|-------------|
| TOL                                                 | -10 °C      | -10 °C      |
| Pdh Tj = -7°C                                       | 12.4 kW     | 12.4 kW     |
| COP Tj = -7°C                                       | 2.7         | 1.98        |
| Cdh Tj = -7 °C                                      | 0.997       | 0.998       |
| Pdh Tj = +2°C                                       | 7.6 kW      | 7.5 kW      |
| COP Tj = +2°C                                       | 4.54        | 3.43        |
| Cdh Tj = +2 °C                                      | 0.991       | 0.993       |
| Pdh Tj = +7°C                                       | 6.4 kW      | 6.3 kW      |
| COP Tj = +7°C                                       | 5.91        | 4.61        |
| Cdh Tj = +7 °C                                      | 0.986       | 0.989       |
| Pdh Tj = 12°C                                       | 4.1 kW      | 3.9 kW      |
| COP Tj = 12°C                                       | 7.03        | 6.28        |
| Cdh Tj = +12 °C                                     | 0.974       | 0.976       |
| Pdh Tj = Tbiv                                       | 12.4 kW     | 12.4 kW     |
| COP Tj = Tbiv                                       | 2.7         | 1.98        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 11 kW       | 11 kW       |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.4         | 1.75        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.997       | 0.998       |
| WTOL                                                | 70 °C       | 70 °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                          | 3 kW        | 3 kW        |
| Annual energy consumption Qhe                       | 6407 kWh    | 8346 kWh    |

#### EN 14825 | Cooling

|                |            |             |
|----------------|------------|-------------|
|                | +7°C/+12°C | +18°C/+23°C |
| Pdesignc       | 12.5 kW    | 14 kW       |
| SEER           | 3.61       | 4.9         |
| Pdc Tj = 35°C  | 12.5 kW    | 14 kW       |
| EER Tj = 35°C  | 2.62       | 3.75        |
| Cdc Tj = 35 °C | 0.997      | 0.996       |
| Pdc Tj = 30°C  | 9.21 kW    | 10.32 kW    |
| EER Tj = 30°C  | 3.47       | 4.93        |
| Cdc Tj = 30 °C | 0.994      | 0.993       |
| Pdc Tj = 25°C  | 6 kW       | 6.63 kW     |
| EER Tj = 25°C  | 4.2        | 5.1         |
| Cdc Tj = 25 °C | 0.99       | 0.988       |
| Pdc Tj = 20°C  | 3.7 kW     | 4.7 kW      |
| EER Tj = 20°C  | 3.49       | 5.4         |
| Cdc Tj = 20 °C | 0.986      | 0.983       |

|                               |          |          |
|-------------------------------|----------|----------|
| Poff                          | 15 W     | 15 W     |
| PTO                           | 15 W     | 15 W     |
| PSB                           | 15 W     | 15 W     |
| PCK                           | 0 W      | 0 W      |
| Annual energy consumption Qce | 2080 kWh | 1714 kWh |

## Model PUZ-SWM140YAA + ERSF-\*M\*E

|                                     |                           |
|-------------------------------------|---------------------------|
| Model name                          | PUZ-SWM140YAA + ERSF-*M*E |
| Application                         | Heating (medium temp)     |
| Units                               | Indoor, Outdoor           |
| Climate zone (for heating)          | n/a                       |
| Heat Source                         | Outdoor Air               |
| Reversibility                       | Yes                       |
| Cooling mode application (optional) | +7°C/12°C, +18°C/+23°C    |
| Any additional heat sources         | n/a                       |

## General data

|                  |             |
|------------------|-------------|
| Power supply     | 3x400V 50Hz |
| Off-peak product | n/a         |

## Outdoor Air/Water

## EN 14511-4 | Heating

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

## EN 14511-2 | Heating

|             | Low temperature | Medium temperature |
|-------------|-----------------|--------------------|
| Heat output | 12 kW           | 7 kW               |
| El input    | 2.52 kW         | 2.59 kW            |
| COP         | 4.77            | 2.7                |

## EN 14511-2 | Cooling

|                  | +7°C/+12°C | +18°C/+23°C |
|------------------|------------|-------------|
| El input         | 4.77 kW    | 3.73 kW     |
| Cooling capacity | 12.5       | 14          |
| EER              | 2.62       | 3.75        |

## EN 12102-1 | Average Climate

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 41 dB(A)        | 41 dB(A)           |
| Sound power level outdoor | 58 dB(A)        | 58 dB(A)           |

## EN 14825 | Average Climate

|          | Low temperature | Medium temperature |
|----------|-----------------|--------------------|
| $\eta_s$ | 177 %           | 135 %              |
| Prated   | 14 kW           | 14 kW              |
| SCOP     | 4.51            | 3.46               |
| Tbiv     | -7 °C           | -7 °C              |

|                                                     |             |             |
|-----------------------------------------------------|-------------|-------------|
| TOL                                                 | -10 °C      | -10 °C      |
| Pdh Tj = -7°C                                       | 12.4 kW     | 12.4 kW     |
| COP Tj = -7°C                                       | 2.7         | 1.98        |
| Cdh Tj = -7 °C                                      | 0.995       | 0.996       |
| Pdh Tj = +2°C                                       | 7.6 kW      | 7.5 kW      |
| COP Tj = +2°C                                       | 4.54        | 3.43        |
| Cdh Tj = +2 °C                                      | 0.987       | 0.99        |
| Pdh Tj = +7°C                                       | 6.4 kW      | 6.3 kW      |
| COP Tj = +7°C                                       | 5.91        | 4.61        |
| Cdh Tj = +7 °C                                      | 0.98        | 0.984       |
| Pdh Tj = 12°C                                       | 4.1 kW      | 3.9 kW      |
| COP Tj = 12°C                                       | 7.03        | 6.28        |
| Cdh Tj = +12 °C                                     | 0.962       | 0.965       |
| Pdh Tj = Tbiv                                       | 12.4 kW     | 12.4 kW     |
| COP Tj = Tbiv                                       | 2.7         | 1.98        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 11 kW       | 11 kW       |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.4         | 1.75        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.995       | 0.997       |
| WTOL                                                | 70 °C       | 70 °C       |
| 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                          | 3 kW        | 3 kW        |
| Annual energy consumption Qhe                       | 6415 kWh    | 8354 kWh    |

#### EN 14825 | Cooling

|                |            |             |
|----------------|------------|-------------|
|                | +7°C/+12°C | +18°C/+23°C |
| Pdesignc       | 12.5 kW    | 14 kW       |
| SEER           | 3.58       | 4.85        |
| Pdc Tj = 35°C  | 12.5 kW    | 14 kW       |
| EER Tj = 35°C  | 2.62       | 3.75        |
| Cdc Tj = 35 °C | 0.995      | 0.994       |
| Pdc Tj = 30°C  | 9.21 kW    | 10.32 kW    |
| EER Tj = 30°C  | 3.47       | 4.93        |
| Cdc Tj = 30 °C | 0.992      | 0.989       |
| Pdc Tj = 25°C  | 6 kW       | 6.63 kW     |
| EER Tj = 25°C  | 4.2        | 5.1         |
| Cdc Tj = 25 °C | 0.985      | 0.983       |
| Pdc Tj = 20°C  | 3.7 kW     | 4.7 kW      |
| EER Tj = 20°C  | 3.49       | 5.4         |
| Cdc Tj = 20 °C | 0.979      | 0.975       |

|                               |          |          |
|-------------------------------|----------|----------|
| Poff                          | 22 W     | 22 W     |
| PTO                           | 22 W     | 22 W     |
| PSB                           | 22 W     | 22 W     |
| PCK                           | 0 W      | 0 W      |
| Annual energy consumption Qce | 2095 kWh | 1731 kWh |