

Page 1 of 23

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

#### **Login**

| Summary of          | DE DIETRICH Alezio 4                        | Reg. No. | 21HK0023/00 |
|---------------------|---------------------------------------------|----------|-------------|
| Certificate Holder  |                                             |          |             |
| Name                | BDR Thermea FR (DE DIETRICH)                |          |             |
| Address             | 57 rue de la Gare                           | Zip      | 67580       |
| City                | Mertzwiller                                 | Country  | France      |
| Certification Body  | Kiwa Nederland B.V.                         |          |             |
| Subtype title       | DE DIETRICH Alezio 4                        |          |             |
| Heat Pump Type      | Outdoor Air/Water                           |          |             |
| Refrigerant         | R32                                         |          |             |
| Mass of Refrigerant | 1.2 kg                                      |          |             |
| Certification Date  | 03.12.2021                                  |          |             |
| Testing basis       | European KEYMARK Scheme for Heat Pumps (v9) |          |             |



# Model: AWHPR 4 MR + MIV-S 4-8/EM R32

| Configure model                     |                               |  |
|-------------------------------------|-------------------------------|--|
| Model name                          | AWHPR 4 MR + MIV-S 4-8/EM R32 |  |
| Application                         | Heating (medium temp)         |  |
| Units                               | Indoor + Outdoor              |  |
| Climate Zone                        | n/a                           |  |
| Reversibility                       | Yes                           |  |
| Cooling mode application (optional) | +7°C/12°C and +18°C/+23°C     |  |

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

### Heating

| EN 14511-2  |                 |                    |
|-------------|-----------------|--------------------|
|             | Low temperature | Medium temperature |
| Heat output | 4.60 kW         | 4.40 kW            |
| El input    | 0.88 kW         | 1.49 kW            |
| COP         | 5 20            | 2 95               |

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

# Cooling

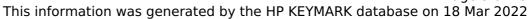




| EN 14511-2       |            |             |
|------------------|------------|-------------|
|                  | +7°C/+12°C | +18°C/+23°C |
| El input         | 1.25 kW    | 1.12 kW     |
| Cooling capacity | 4.50       | 6.00        |
| EER              | 3.60       | 5.35        |



| EN 14825                      |            |             |  |
|-------------------------------|------------|-------------|--|
|                               | +7°C/+12°C | +18°C/+23°C |  |
| Pdesignc                      | 4.50 kW    | 6.00 kW     |  |
| SEER                          | 4.69       | 8.13        |  |
| Pdc Tj = 35°C                 | 4.50 kW    | 6.00 kW     |  |
| EER Tj = 35°C                 | 3.60       | 5.35        |  |
| Pdc Tj = 30°C                 | 3.32 kW    | 4.50 kW     |  |
| EER Tj = 30°C                 | 3.97       | 7.09        |  |
| Pdc Tj = 25°C                 | 2.30 kW    | 2.80 kW     |  |
| EER Tj = 25°C                 | 5.23       | 9.20        |  |
| Pdc Tj = 20°C                 | 1.85 kW    | 2.85 kW     |  |
| EER Tj = 20°C                 | 6.40       | 12.23       |  |
| Poff                          | 12 W       | 12 W        |  |
| РТО                           | 12 W       | 12 W        |  |
| PSB                           | 12 W       | 12 W        |  |
| PCK                           | 0 W        | 0 W         |  |
| Annual energy consumption Qce | 576 kWh    | 443 kWh     |  |





| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 33 dB(A)        | 33 dB(A)           |
| Sound power level outdoor | 58 dB(A)        | 58 dB(A)           |

| EN 14825       |                 |                    |
|----------------|-----------------|--------------------|
|                | Low temperature | Medium temperature |
| $\eta_{s}$     | 177 %           | 135 %              |
| Prated         | 5.00 kW         | 5.00 kW            |
| SCOP           | 4.50            | 3.44               |
| Tbiv           | -10 °C          | -7 °C              |
| TOL            | -10 °C          | -10 °C             |
| Pdh Tj = -7°C  | 4.40 kW         | 4.50 kW            |
| COP Tj = -7°C  | 3.18            | 2.15               |
| Cdh Tj = -7 °C | 0.990           | 0.990              |
| Pdh Tj = +2°C  | 2.70 kW         | 2.70 kW            |
| COP Tj = +2°C  | 4.44            | 3.39               |
| Cdh Tj = +2 °C | 0.980           | 0.980              |
| Pdh Tj = +7°C  | 1.75 kW         | 1.74 kW            |
| COP Tj = +7°C  | 5.37            | 4.44               |
| Cdh Tj = +7 °C | 0.960           | 0.960              |





| Pdh Tj = 12°C                                       | 2.70 kW  | 2.10 kW  |
|-----------------------------------------------------|----------|----------|
| COP Tj = 12°C                                       | 8.78     | 7.29     |
| Cdh Tj = +12 °C                                     | 0.950    | 0.950    |
| Pdh Tj = Tbiv                                       | 5.00 kW  | 4.50 kW  |
| COP Tj = Tbiv                                       | 3.00     | 2.15     |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.00 kW  | 4.30 kW  |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.00     | 1.83     |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.990    | 0.990    |
| WTOL                                                | 60 °C    | 60 °C    |
| Poff                                                | 12 W     | 12 W     |
| РТО                                                 | 12 W     | 12 W     |
| PSB                                                 | 12 W     | 12 W     |
| PCK                                                 | o w      | 0 W      |
| Supplementary Heater: Type of energy input          | n/a      | n/a      |
| Supplementary Heater: PSUP                          | 0.00 kW  | 0.70 kW  |
| Annual energy consumption Qhe                       | 2297 kWh | 3000 kWh |



# Model: AWHPR 4 MR + MIV-S 4-8/EM R32 + HPSL180 EVO

| Configure model                     |                                             |  |
|-------------------------------------|---------------------------------------------|--|
| Model name                          | AWHPR 4 MR + MIV-S 4-8/EM R32 + HPSL180 EVO |  |
| Application                         | Heating + DHW + low temp                    |  |
| Units                               | Indoor + Outdoor                            |  |
| Climate Zone                        | n/a                                         |  |
| Reversibility                       | Yes                                         |  |
| Cooling mode application (optional) | +7°C/12°C and +18°C/+23°C                   |  |

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

### Heating

| EN 14511-2  |                 |                    |
|-------------|-----------------|--------------------|
|             | Low temperature | Medium temperature |
| Heat output | 4.60 kW         | 4.40 kW            |
| El input    | 0.88 kW         | 1.49 kW            |
| СОР         | 5.20            | 2.95               |

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

#### Cooling





| EN 14511-2       |            |             |
|------------------|------------|-------------|
|                  | +7°C/+12°C | +18°C/+23°C |
| El input         | 1.25 kW    | 1.12 kW     |
| Cooling capacity | 4.50       | 6.00        |
| EER              | 3.60       | 5.35        |



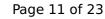
| EN 14825                      |            |             |
|-------------------------------|------------|-------------|
|                               | +7°C/+12°C | +18°C/+23°C |
| Pdesignc                      | 4.50 kW    | 6.00 kW     |
| SEER                          | 4.69       | 8.13        |
| Pdc Tj = 35°C                 | 4.50 kW    | 6.00 kW     |
| EER Tj = 35°C                 | 3.60       | 5.35        |
| Pdc Tj = 30°C                 | 3.32 kW    | 4.50 kW     |
| EER Tj = 30°C                 | 3.97       | 7.09        |
| Pdc Tj = 25°C                 | 2.30 kW    | 2.80 kW     |
| EER Tj = 25°C                 | 5.23       | 9.20        |
| Pdc Tj = 20°C                 | 1.85 kW    | 2.85 kW     |
| EER Tj = 20°C                 | 6.40       | 12.23       |
| Poff                          | 12 W       | 12 W        |
| РТО                           | 12 W       | 12 W        |
| PSB                           | 12 W       | 12 W        |
| PCK                           | 0 W        | 0 W         |
| Annual energy consumption Qce | 576 kWh    | 443 kWh     |





| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 33 dB(A)        | 33 dB(A)           |
| Sound power level outdoor | 58 dB(A)        | 58 dB(A)           |

| EN 14825               |                 |                    |
|------------------------|-----------------|--------------------|
|                        | Low temperature | Medium temperature |
| $\eta_{s}$             | 177 %           | 135 %              |
| Prated                 | 5.00 kW         | 5.00 kW            |
| SCOP                   | 4.50            | 3.44               |
| Tbiv                   | -10 °C          | -7 °C              |
| TOL                    | -10 °C          | -10 °C             |
| Pdh Tj = -7°C          | 4.40 kW         | 4.50 kW            |
| COP Tj = -7°C          | 3.18            | 2.15               |
| Cdh Tj = -7 °C         | 0.990           | 0.990              |
| Pdh Tj = +2°C          | 2.70 kW         | 2.70 kW            |
| COP Tj = +2°C          | 4.44            | 3.39               |
| Cdh Tj = +2 °C         | 0.980           | 0.980              |
| Pdh Tj = +7°C          | 1.75 kW         | 1.74 kW            |
| $COP Tj = +7^{\circ}C$ | 5.37            | 4.44               |
| Cdh Tj = +7 °C         | 0.960           | 0.960              |





| Pdh Tj = 12°C                                       | 2.70 kW  | 2.10 kW  |
|-----------------------------------------------------|----------|----------|
| COP Tj = 12°C                                       | 8.78     | 7.29     |
| Cdh Tj = +12 °C                                     | 0.950    | 0.950    |
| Pdh Tj = Tbiv                                       | 5.00 kW  | 4.50 kW  |
| COP Tj = Tbiv                                       | 3.00     | 2.15     |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.00 kW  | 4.30 kW  |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.00     | 1.83     |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.990    | 0.990    |
| WTOL                                                | 60 °C    | 60 °C    |
| Poff                                                | 12 W     | 12 W     |
| РТО                                                 | 12 W     | 12 W     |
| PSB                                                 | 12 W     | 12 W     |
| PCK                                                 | o w      | 0 W      |
| Supplementary Heater: Type of energy input          | n/a      | n/a      |
| Supplementary Heater: PSUP                          | 0.00 kW  | 0.70 kW  |
| Annual energy consumption Qhe                       | 2297 kWh | 3000 kWh |

## Domestic Hot Water (DHW)



| EN 16147                        |            |  |
|---------------------------------|------------|--|
| Declared load profile           | М          |  |
| Efficiency ηDHW                 | 118 %      |  |
| СОР                             | 2.77       |  |
| Heating up time                 | 1:35 h:min |  |
| Standby power input             | 24.1 W     |  |
| Reference hot water temperature | 53.1 °C    |  |
| Mixed water at 40°C             | 250 l      |  |



# Model: AWHPR 4 MR + MIV-S 4-8/EM R32 + HPSL180 EVO

| Configure model                                               |                          |  |
|---------------------------------------------------------------|--------------------------|--|
| Model name AWHPR 4 MR + MIV-S 4-8/EM R32 + HPSL180 EVO        |                          |  |
| Application                                                   | Heating + DHW + low temp |  |
| Units Indoor + Outdoor                                        |                          |  |
| Climate Zone n/a                                              |                          |  |
| Reversibility Yes                                             |                          |  |
| Cooling mode application (optional) +7°C/12°C and +18°C/+23°C |                          |  |

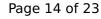
| General Data             |  |  |
|--------------------------|--|--|
| Power supply 1x230V 50Hz |  |  |

### Heating

| EN 14511-2  |                 |                    |
|-------------|-----------------|--------------------|
|             | Low temperature | Medium temperature |
| Heat output | 4.60 kW         | 4.40 kW            |
| El input    | 0.88 kW         | 1.49 kW            |
| СОР         | 5.20            | 2.95               |

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

#### Cooling





| EN 14511-2             |         |         |  |
|------------------------|---------|---------|--|
| +7°C/+12°C +18°C/+23°C |         |         |  |
| El input               | 1.25 kW | 1.12 kW |  |
| Cooling capacity       | 4.50    | 6.00    |  |
| EER                    | 3.60    | 5.35    |  |



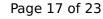
| EN 14825                      |            |             |
|-------------------------------|------------|-------------|
|                               | +7°C/+12°C | +18°C/+23°C |
| Pdesignc                      | 4.50 kW    | 6.00 kW     |
| SEER                          | 4.69       | 8.13        |
| Pdc Tj = 35°C                 | 4.50 kW    | 6.00 kW     |
| EER Tj = 35°C                 | 3.60       | 5.35        |
| Pdc Tj = 30°C                 | 3.32 kW    | 4.50 kW     |
| EER Tj = 30°C                 | 3.97       | 7.09        |
| Pdc Tj = 25°C                 | 2.30 kW    | 2.80 kW     |
| EER Tj = 25°C                 | 5.23       | 9.20        |
| Pdc Tj = 20°C                 | 1.85 kW    | 2.85 kW     |
| EER Tj = 20°C                 | 6.40       | 12.23       |
| Poff                          | 12 W       | 12 W        |
| РТО                           | 12 W       | 12 W        |
| PSB                           | 12 W       | 12 W        |
| PCK                           | 0 W        | o w         |
| Annual energy consumption Qce | 576 kWh    | 443 kWh     |



| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 33 dB(A)        | 33 dB(A)           |
| Sound power level outdoor | 58 dB(A)        | 58 dB(A)           |

CEN heat pump KEYMARK

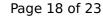
| EN 14825       |                 |                    |
|----------------|-----------------|--------------------|
|                | Low temperature | Medium temperature |
| $\eta_{s}$     | 177 %           | 135 %              |
| Prated         | 5.00 kW         | 5.00 kW            |
| SCOP           | 4.50            | 3.44               |
| Tbiv           | -10 °C          | -7 °C              |
| TOL            | -10 °C          | -10 °C             |
| Pdh Tj = -7°C  | 4.40 kW         | 4.50 kW            |
| COP Tj = -7°C  | 3.18            | 2.15               |
| Cdh Tj = -7 °C | 0.990           | 0.990              |
| Pdh Tj = +2°C  | 2.70 kW         | 2.70 kW            |
| COP Tj = +2°C  | 4.44            | 3.39               |
| Cdh Tj = +2 °C | 0.980           | 0.980              |
| Pdh Tj = +7°C  | 1.75 kW         | 1.74 kW            |
| COP Tj = +7°C  | 5.37            | 4.44               |
| Cdh Tj = +7 °C | 0.960           | 0.960              |





| This information was genera                         |          |          |
|-----------------------------------------------------|----------|----------|
| Pdh Tj = 12°C                                       | 2.70 kW  | 2.10 kW  |
| COP Tj = 12°C                                       | 8.78     | 7.29     |
| Cdh Tj = +12 °C                                     | 0.950    | 0.950    |
| Pdh Tj = Tbiv                                       | 5.00 kW  | 4.50 kW  |
| COP Tj = Tbiv                                       | 3.00     | 2.15     |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.00 kW  | 4.30 kW  |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.00     | 1.83     |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.990    | 0.990    |
| WTOL                                                | 60 °C    | 60 °C    |
| Poff                                                | 12 W     | 12 W     |
| PTO                                                 | 12 W     | 12 W     |
| PSB                                                 | 12 W     | 12 W     |
| PCK                                                 | 0 W      | 0 W      |
| Supplementary Heater: Type of energy input          | n/a      | n/a      |
| Supplementary Heater: PSUP                          | 0.00 kW  | 0.70 kW  |
| Annual energy consumption Qhe                       | 2297 kWh | 3000 kWh |

Domestic Hot Water (DHW)





| EN 16147                        |            |
|---------------------------------|------------|
| Declared load profile           | L          |
| Efficiency ηDHW                 | 133 %      |
| СОР                             | 3.19       |
| Heating up time                 | 1:35 h:min |
| Standby power input             | 26.6 W     |
| Reference hot water temperature | 53.1 °C    |
| Mixed water at 40°C             | 250 l      |



## Model: AWHPR 4 MR + MIV-S 4-8/H R32

| Configure model                     |                              |  |
|-------------------------------------|------------------------------|--|
| Model name                          | AWHPR 4 MR + MIV-S 4-8/H R32 |  |
| Application                         | Heating (medium temp)        |  |
| Units                               | Indoor + Outdoor             |  |
| Climate Zone                        | n/a                          |  |
| Reversibility                       | Yes                          |  |
| Cooling mode application (optional) | +7°C/12°C and +18°C/+23°C    |  |

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

### Heating

| EN 14511-2                         |         |         |
|------------------------------------|---------|---------|
| Low temperature Medium temperature |         |         |
| Heat output                        | 4.60 kW | 4.40 kW |
| El input                           | 0.88 kW | 1.49 kW |
| СОР                                | 5.20    | 2.95    |

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

# Cooling





| EN 14511-2             |         |         |  |
|------------------------|---------|---------|--|
| +7°C/+12°C +18°C/+23°C |         |         |  |
| El input               | 1.25 kW | 1.12 kW |  |
| Cooling capacity       | 4.50    | 6.00    |  |
| EER                    | 3.60    | 5.35    |  |

443 kWh



This information was generated by the HP KEYMARK database on 18 Mar 2022 EN 14825 +7°C/+12°C +18°C/+23°C 6.00 kW **Pdesignc** 4.50 kW **SEER** 4.69 8.13  $Pdc Tj = 35^{\circ}C$ 4.50 kW 6.00 kW EER Tj = 35°C 3.60 5.35  $Pdc Tj = 30^{\circ}C$ 3.32 kW 4.50 kW EER Tj = 30°C 3.97 7.09  $Pdc Tj = 25^{\circ}C$ 2.30 kW 2.80 kW EER Tj = 25°C 5.23 9.20  $Pdc Tj = 20^{\circ}C$ 1.85 kW 2.85 kW EER Tj = 20°C 6.40 12.23 Poff 12 W 12 W PTO 12 W 12 W **PSB** 12 W 12 W **PCK** 0 W 0 W

## Average Climate

Annual energy consumption Qce

576 kWh



| EN 12102-1                |                 |                    |
|---------------------------|-----------------|--------------------|
|                           | Low temperature | Medium temperature |
| Sound power level indoor  | 33 dB(A)        | 33 dB(A)           |
| Sound power level outdoor | 58 dB(A)        | 58 dB(A)           |

| EN 14825       |                 |                    |  |
|----------------|-----------------|--------------------|--|
|                | Low temperature | Medium temperature |  |
| $\eta_{s}$     | 177 %           | 135 %              |  |
| Prated         | 5.00 kW         | 5.00 kW            |  |
| SCOP           | 4.50            | 3.44               |  |
| Tbiv           | -10 °C          | -7 °C              |  |
| TOL            | -10 °C          | -10 °C             |  |
| Pdh Tj = -7°C  | 4.40 kW         | 4.50 kW            |  |
| COP Tj = -7°C  | 3.18            | 2.15               |  |
| Cdh Tj = -7 °C | 0.990           | 0.990              |  |
| Pdh Tj = +2°C  | 2.70 kW         | 2.70 kW            |  |
| COP Tj = +2°C  | 4.44            | 3.39               |  |
| Cdh Tj = +2 °C | 0.980           | 0.980              |  |
| Pdh Tj = +7°C  | 1.75 kW         | 1.74 kW            |  |
| COP Tj = +7°C  | 5.37            | 4.44               |  |
| Cdh Tj = +7 °C | 0.960           | 0.960              |  |



Page 23 of 23

| Pdh Tj = 12°C                                       | 2.70 kW  | 2.10 kW  |
|-----------------------------------------------------|----------|----------|
| COP Tj = 12°C                                       | 8.78     | 7.29     |
| Cdh Tj = +12 °C                                     | 0.950    | 0.950    |
| Pdh Tj = Tbiv                                       | 5.00 kW  | 4.50 kW  |
| COP Tj = Tbiv                                       | 3.00     | 2.15     |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.00 kW  | 4.30 kW  |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.00     | 1.83     |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.990    | 0.990    |
| WTOL                                                | 60 °C    | 60 °C    |
| Poff                                                | 12 W     | 12 W     |
| РТО                                                 | 12 W     | 12 W     |
| PSB                                                 | 12 W     | 12 W     |
| PCK                                                 | o w      | o w      |
| Supplementary Heater: Type of energy input          | n/a      | n/a      |
| Supplementary Heater: PSUP                          | 0.00 kW  | 0.70 kW  |
| Annual energy consumption Qhe                       | 2297 kWh | 3000 kWh |