| Subtype airH2O 400 Mono 10 12 | |
|---|---|
| Certificate Holder | Johnson Controls Hitachi Air-Conditioning Europe SAS |
| Address | Parc Aktiland II – 2, Rue de Lombardie |
| ZIP | 69800 |
| City | SAINT PRIEST |
| Country | FR |
| Certification Body | DIN CERTCO Gesellschaft für Konformitätsbewertung mbH |
| Subtype title | airH2O 400 Mono 10 12 |
| Registration number | 011-1W0845 |
| Heat Pump Type | Outdoor Air/Water |
| Refrigerant | R32 |
| Mass of Refrigerant | 1.5 kg |
| Certification Date | 18.07.2024 |
| Testing basis | HP KEYMARK certification scheme rules V14 |

| Model HZKF10KME-Q | |
|---|---|
| Model name | HZKF10KME-Q |
| Application | Heating (medium temp) |
| Units | Outdoor |
| Climate zone (for heating) | Warmer, Warmer Climate |
| Reversibility | Yes |
| Cooling mode application (optional) | n/a |
| Any additional heat sources | n/a |

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

| Outdoor Air/Water<br>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 | 10.00 kW | 9.00 kW |
| El input | 1.96 kW | 2.90 kW |
| COP | 5.10 | 3.10 |

| EN 12102-1 \| Average Climate | | |
|---|---|---|
| | Low temperature | Medium temperature |
| Sound power level outdoor | 62 dB(A) | 62 dB(A) |

| EN 14825 \| Average Climate | | |
|---|---|---|
| | Low temperature | Medium temperature |
| ηs | 193 % | 142 % |
| Prated | 9.20 kW | 9.20 kW |
| SCOP | 4.90 | 3.62 |
| Tbiv | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| Pdh Tj = -7°C | 8.16 kW | 8.18 kW |
| COP Tj = -7°C | 3.14 | 2.35 |
| Cdh Tj = -7 °C | 0.900 | 0.900 |
| Pdh Tj = +2°C | 5.19 kW | 5.15 kW |
| COP Tj = +2°C | 4.65 | 3.49 |
| Cdh Tj = +2 °C | 0.900 | 0.900 |
| Pdh Tj = +7°C | 3.28 kW | 3.36 kW |

| | | |
|---|---|---|
| COP Tj = +7°C | 6.59 | 4.66 |
| Cdh Tj = +7 °C | 0.900 | 0.900 |
| Pdh Tj = 12°C | 2.75 kW | 2.64 kW |
| COP Tj = 12°C | 8.48 | 6.30 |
| Cdh Tj = +12 °C | 0.900 | 0.900 |
| Pdh Tj = Tbiv | 8.16 kW | 8.18 kW |
| COP Tj = Tbiv | 3.14 | 2.35 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 9.15 kW | 9.05 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.64 | 1.96 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900 | 0.900 |
| WTOL | 60 °C | 60 °C |
| Poff | 10 W | 10 W |
| PTO | 13 W | 13 W |
| PSB | 10 W | 10 W |
| PCK | 0 W | 0 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 0.05 kW | 0.15 kW |
| Annual energy consumption Qhe | 3890 kWh | 5273 kWh |

## EN 12102-1 | Warmer Climate

| | Low temperature | Medium temperature |
|---|---|---|
| Sound power level outdoor | 62 dB(A) | 62 dB(A) |

## EN 14825 | Warmer Climate

| | Low temperature | Medium temperature |
|---|---|---|
| ηs | 265 % | 170 % |
| Prated | 9.70 kW | 9.50 kW |
| SCOP | 6.70 | 4.34 |
| Tbiv | 7 °C | 7 °C |
| TOL | 2 °C | 2 °C |
| Pdh Tj = +2°C | 9.38 kW | 9.50 kW |
| COP Tj = +2°C | 3.78 | 2.53 |
| Cdh Tj = +2 °C | 0.900 | 0.900 |
| Pdh Tj = +7°C | 6.21 kW | 6.08 kW |
| COP Tj = +7°C | 5.67 | 3.60 |
| Cdh Tj = +7 °C | 0.900 | 0.900 |
| Pdh Tj = 12°C | 2.95 kW | 2.74 kW |
| COP Tj = 12°C | 8.85 | 5.56 |
| Cdh Tj = +12 °C | 0.900 | 0.900 |
| Pdh Tj = Tbiv | 6.21 kW | 6.08 kW |
| COP Tj = Tbiv | 5.67 | 3.60 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 9.38 kW | 9.50 kW |

| | | |
|---|---|---|
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.78 | 2.53 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900 | 0.900 |
| WTOL | 65 °C | 65 °C |
| Poff | 10 W | 10 W |
| PTO | 13 W | 13 W |
| PSB | 10 W | 10 W |
| PCK | 0 W | 0 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 0.32 kW | 0.00 kW |
| Annual energy consumption Qhe | 1926 kWh | 2915 kWh |

| Model HZKF10KMO-Q | |
|---|---|
| Model name | HZKF10KMO-Q |
| Application | Heating (medium temp) |
| Units | Outdoor |
| Climate zone (for heating) | Warmer, Warmer Climate |
| Reversibility | Yes |
| Cooling mode application (optional) | n/a |
| Any additional heat sources | n/a |

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

| Outdoor Air/Water<br>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 | 10.00 kW | 9.00 kW |
| El input | 1.96 kW | 2.90 kW |
| COP | 5.10 | 3.10 |

| EN 12102-1 \| Average Climate | | |
|---|---|---|
| | Low temperature | Medium temperature |
| Sound power level outdoor | 62 dB(A) | 62 dB(A) |

| EN 14825 \| Average Climate | | |
|---|---|---|
| | Low temperature | Medium temperature |
| ηs | 193 % | 142 % |
| Prated | 9.20 kW | 9.20 kW |
| SCOP | 4.90 | 3.62 |
| Tbiv | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| Pdh Tj = -7°C | 8.16 kW | 8.18 kW |
| COP Tj = -7°C | 3.14 | 2.35 |
| Cdh Tj = -7 °C | 0.900 | 0.900 |
| Pdh Tj = +2°C | 5.19 kW | 5.15 kW |
| COP Tj = +2°C | 4.65 | 3.49 |
| Cdh Tj = +2 °C | 0.900 | 0.900 |
| Pdh Tj = +7°C | 3.28 kW | 3.36 kW |

| | | |
|---|---|---|
| COP Tj = +7°C | 6.59 | 4.66 |
| Cdh Tj = +7 °C | 0.900 | 0.900 |
| Pdh Tj = 12°C | 2.75 kW | 2.64 kW |
| COP Tj = 12°C | 8.48 | 6.30 |
| Cdh Tj = +12 °C | 0.900 | 0.900 |
| Pdh Tj = Tbiv | 8.16 kW | 8.18 kW |
| COP Tj = Tbiv | 3.14 | 2.35 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 9.15 kW | 9.05 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.64 | 1.96 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900 | 0.900 |
| WTOL | 60 °C | 60 °C |
| Poff | 10 W | 10 W |
| PTO | 13 W | 13 W |
| PSB | 10 W | 10 W |
| PCK | 0 W | 0 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 0.05 kW | 0.15 kW |
| Annual energy consumption Qhe | 3890 kWh | 5273 kWh |

## EN 12102-1 | Warmer Climate

| | Low temperature | Medium temperature |
|---|---|---|
| Sound power level outdoor | 62 dB(A) | 62 dB(A) |

## EN 14825 | Warmer Climate

| | Low temperature | Medium temperature |
|---|---|---|
| ηs | 265 % | 170 % |
| Prated | 9.70 kW | 9.50 kW |
| SCOP | 6.70 | 4.34 |
| Tbiv | 7 °C | 7 °C |
| TOL | 2 °C | 2 °C |
| Pdh Tj = +2°C | 9.38 kW | 9.50 kW |
| COP Tj = +2°C | 3.78 | 2.53 |
| Cdh Tj = +2 °C | 0.900 | 0.900 |
| Pdh Tj = +7°C | 6.21 kW | 6.08 kW |
| COP Tj = +7°C | 5.67 | 3.60 |
| Cdh Tj = +7 °C | 0.900 | 0.900 |
| Pdh Tj = 12°C | 2.95 kW | 2.74 kW |
| COP Tj = 12°C | 8.85 | 5.56 |
| Cdh Tj = +12 °C | 0.900 | 0.900 |
| Pdh Tj = Tbiv | 6.21 kW | 6.08 kW |
| COP Tj = Tbiv | 5.67 | 3.60 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 9.38 kW | 9.50 kW |

| | | |
|---|---|---|
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.78 | 2.53 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900 | 0.900 |
| WTOL | 65 °C | 65 °C |
| Poff | 10 W | 10 W |
| PTO | 13 W | 13 W |
| PSB | 10 W | 10 W |
| PCK | 0 W | 0 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 0.32 kW | 0.00 kW |
| Annual energy consumption Qhe | 1926 kWh | 2915 kWh |

| Model HZKF12KME-Q | |
|---|---|
| Model name | HZKF12KME-Q |
| Application | Heating (medium temp) |
| Units | Outdoor |
| Climate zone (for heating) | Warmer, Warmer Climate |
| Reversibility | Yes |
| Cooling mode application (optional) | n/a |
| 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 | 12.00 kW | 11.20 kW |
| El input | 2.42 kW | 3.67 kW |
| COP | 4.95 | 3.05 |

| EN 12102-1 \| Average Climate | | |
|---|---|---|
| | Low temperature | Medium temperature |
| Sound power level outdoor | 64 dB(A) | 64 dB(A) |

| EN 14825 \| Average Climate | | |
|---|---|---|
| | Low temperature | Medium temperature |
| ηs | 192 % | 136 % |
| Prated | 10.20 kW | 10.00 kW |
| SCOP | 4.87 | 3.47 |
| Tbiv | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| Pdh Tj = -7°C | 8.98 kW | 8.87 kW |
| COP Tj = -7°C | 3.15 | 2.32 |
| Cdh Tj = -7 °C | 0.900 | 0.900 |
| Pdh Tj = +2°C | 5.61 kW | 5.34 kW |
| COP Tj = +2°C | 4.64 | 3.22 |
| Cdh Tj = +2 °C | 0.900 | 0.900 |
| Pdh Tj = +7°C | 3.57 kW | 3.47 kW |

| | | |
|---|---|---|
| COP Tj = +7°C | 6.48 | 4.65 |
| Cdh Tj = +7 °C | 0.900 | 0.900 |
| Pdh Tj = 12°C | 2.77 kW | 2.66 kW |
| COP Tj = 12°C | 8.11 | 6.34 |
| Cdh Tj = +12 °C | 0.900 | 0.900 |
| Pdh Tj = Tbiv | 8.98 kW | 8.87 kW |
| COP Tj = Tbiv | 3.15 | 2.32 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 9.92 kW | 10.15 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.71 | 1.89 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900 | 0.900 |
| WTOL | 60 °C | 60 °C |
| Poff | 10 W | 10 W |
| PTO | 13 W | 13 W |
| PSB | 10 W | 10 W |
| PCK | 0 W | 0 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 0.28 kW | 0.00 kW |
| Annual energy consumption Qhe | 4309 kWh | 5964 kWh |

## EN 12102-1 | Warmer Climate

| | Low temperature | Medium temperature |
|---|---|---|
| Sound power level outdoor | 64 dB(A) | 64 dB(A) |

## EN 14825 | Warmer Climate

| | Low temperature | Medium temperature |
|---|---|---|
| ηs | 259 % | 170 % |
| Prated | 10.50 kW | 10.50 kW |
| SCOP | 6.56 | 4.33 |
| Tbiv | 7 °C | 7 °C |
| TOL | 2 °C | 2 °C |
| Pdh Tj = +2°C | 10.22 kW | 10.10 kW |
| COP Tj = +2°C | 3.74 | 2.47 |
| Cdh Tj = +2 °C | 0.900 | 0.900 |
| Pdh Tj = +7°C | 6.77 kW | 6.75 kW |
| COP Tj = +7°C | 5.90 | 3.62 |
| Cdh Tj = +7 °C | 0.900 | 0.900 |
| Pdh Tj = 12°C | 2.94 kW | 2.95 kW |
| COP Tj = 12°C | 8.13 | 5.69 |
| Cdh Tj = +12 °C | 0.900 | 0.900 |
| Pdh Tj = Tbiv | 6.77 kW | 6.75 kW |
| COP Tj = Tbiv | 5.90 | 3.62 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 10.22 kW | 10.10 kW |

| | | |
|---|---|---|
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.74 | 2.47 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900 | 0.900 |
| WTOL | 65 °C | 65 °C |
| Poff | 10 W | 10 W |
| PTO | 13 W | 13 W |
| PSB | 10 W | 10 W |
| PCK | 0 W | 0 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 0.28 kW | 0.40 kW |
| Annual energy consumption Qhe | 2145 kWh | 3243 kWh |

| Model HZKF12KMO-Q | |
|---|---|
| Model name | HZKF12KMO-Q |
| Application | Heating (medium temp) |
| Units | Outdoor |
| Climate zone (for heating) | Warmer, Warmer Climate |
| Reversibility | Yes |
| Cooling mode application (optional) | n/a |
| Any additional heat sources | n/a |

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

| Outdoor Air/Water<br>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 | 12.00 kW | 11.20 kW |
| El input | 2.42 kW | 3.67 kW |
| COP | 4.95 | 3.05 |

| EN 12102-1 \| Average Climate | | |
|---|---|---|
| | Low temperature | Medium temperature |
| Sound power level outdoor | 64 dB(A) | 64 dB(A) |

| EN 14825 \| Average Climate | | |
|---|---|---|
| | Low temperature | Medium temperature |
| ηs | 192 % | 136 % |
| Prated | 10.20 kW | 10.00 kW |
| SCOP | 4.87 | 3.47 |
| Tbiv | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| Pdh Tj = -7°C | 8.98 kW | 8.87 kW |
| COP Tj = -7°C | 3.15 | 2.32 |
| Cdh Tj = -7 °C | 0.900 | 0.900 |
| Pdh Tj = +2°C | 5.61 kW | 5.34 kW |
| COP Tj = +2°C | 4.64 | 3.22 |
| Cdh Tj = +2 °C | 0.900 | 0.900 |
| Pdh Tj = +7°C | 3.57 kW | 3.47 kW |

| | | |
|---|---|---|
| COP Tj = +7°C | 6.48 | 4.65 |
| Cdh Tj = +7 °C | 0.900 | 0.900 |
| Pdh Tj = 12°C | 2.77 kW | 2.66 kW |
| COP Tj = 12°C | 8.11 | 6.34 |
| Cdh Tj = +12 °C | 0.900 | 0.900 |
| Pdh Tj = Tbiv | 8.98 kW | 8.87 kW |
| COP Tj = Tbiv | 3.15 | 2.32 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 9.92 kW | 10.15 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.71 | 1.89 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900 | 0.900 |
| WTOL | 60 °C | 60 °C |
| Poff | 10 W | 10 W |
| PTO | 13 W | 13 W |
| PSB | 10 W | 10 W |
| PCK | 0 W | 0 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 0.28 kW | 0.00 kW |
| Annual energy consumption Qhe | 4309 kWh | 5964 kWh |

## EN 12102-1 | Warmer Climate

| | Low temperature | Medium temperature |
|---|---|---|
| Sound power level outdoor | 64 dB(A) | 64 dB(A) |

## EN 14825 | Warmer Climate

| | Low temperature | Medium temperature |
|---|---|---|
| ηs | 259 % | 170 % |
| Prated | 10.50 kW | 10.50 kW |
| SCOP | 6.56 | 4.33 |
| Tbiv | 7 °C | 7 °C |
| TOL | 2 °C | 2 °C |
| Pdh Tj = +2°C | 10.22 kW | 10.10 kW |
| COP Tj = +2°C | 3.74 | 2.47 |
| Cdh Tj = +2 °C | 0.900 | 0.900 |
| Pdh Tj = +7°C | 6.77 kW | 6.75 kW |
| COP Tj = +7°C | 5.90 | 3.62 |
| Cdh Tj = +7 °C | 0.900 | 0.900 |
| Pdh Tj = 12°C | 2.94 kW | 2.95 kW |
| COP Tj = 12°C | 8.13 | 5.69 |
| Cdh Tj = +12 °C | 0.900 | 0.900 |
| Pdh Tj = Tbiv | 6.77 kW | 6.75 kW |
| COP Tj = Tbiv | 5.90 | 3.62 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 10.22 kW | 10.10 kW |

| | | |
|---|---|---|
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.74 | 2.47 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900 | 0.900 |
| WTOL | 65 °C | 65 °C |
| Poff | 10 W | 10 W |
| PTO | 13 W | 13 W |
| PSB | 10 W | 10 W |
| PCK | 0 W | 0 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 0.28 kW | 0.40 kW |
| Annual energy consumption Qhe | 2145 kWh | 3243 kWh |