

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

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|                     |  |          |                    |
|---------------------|--|----------|--------------------|
| Summary of          | AEROTOP M 048                                    | Reg. No. | ICIM-PDC-000097-00 |
| Certificate Holder  |  |          |                    |
| Name                | ELCO GmbH  |          |                    |
| Address             | Hohenzollernstrasse 31                           | Zip      | 72379              |
| City                | Hechingen  | Country  | Germany            |
| Certification Body  | ICIM S.p.A.                                      |          |                    |
| Subtype title       | AEROTOP M 048                                    |          |                    |
| Heat Pump Type      | Outdoor Air/Water                                |          |                    |
| Refrigerant         | R32  |          |                    |
| Mass of Refrigerant | 14 kg  |          |                    |
| Certification Date  | 30.03.2021                                       |          |                    |
| Testing basis       | HP KEYMARK certification scheme rules rev. no. 7 |          |                    |

## Model: AEROTOP M 048

| Configure model                     |                    |
|-------------------------------------|--------------------|
| Model name                          | AEROTOP M 048      |
| Application                         | Heating (low temp) |
| Units                               | Outdoor            |
| Climate Zone                        | n/a                |
| Reversibility                       | Yes                |
| Cooling mode application (optional) | n/a                |

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

### Heating

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

| EN 14511-2  |                 |                    |
|-------------|-----------------|--------------------|
|             | Low temperature | Medium temperature |
| Heat output | 48.60 kW        | 4.80 kW            |
| El input    | 12.12 kW        | 1.90 kW            |
| COP         | 4.01            | 2.53               |

### Average Climate

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### EN 12102-1

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level outdoor | 84 dB(A)        | 64 dB(A)           |

### EN 14825

|                | Low temperature | Medium temperature |
|----------------|-----------------|--------------------|
| $\eta_s$       | 154 %           | 129 %              |
| Prated         | 31.00 kW        | 7.00 kW            |
| SCOP           | 3.91            | 3.30               |
| Tbiv           | -10 °C          | -7 °C              |
| TOL            | -10 °C          | -10 °C             |
| Pdh Tj = -7°C  | 27.80 kW        | 5.90 kW            |
| COP Tj = -7°C  | 2.72            | 2.00               |
| Cdh Tj = -7 °C | 0.90            |                    |
| Pdh Tj = +2°C  | 16.90 kW        | 3.70 kW            |
| COP Tj = +2°C  | 3.85            | 3.18               |
| Cdh Tj = +2 °C | 0.90            |                    |
| Pdh Tj = +7°C  | 10.90 kW        | 2.50 kW            |
| COP Tj = +7°C  | 4.90            | 4.52               |
| Cdh Tj = +7 °C | 0.90            |                    |
| Pdh Tj = 12°C  | 14.20 kW        | 1.10 kW            |

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|   |             |             |
|---|-------------|-------------|
| COP Tj = 12°C                                       | 6.02        | 5.09        |
| Cdh Tj = +12 °C                                     | 0.90        |             |
| Pdh Tj = Tbiv                                       | 31.40 kW    | 5.90 kW     |
| COP Tj = Tbiv                                       | 2.42        | 2.00        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 31.40 kW    | 6.60 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.42        | 1.80        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.90        | 0.90        |
| WTOL  | 54 °C       | 49 °C       |
| Poff  | 30 W        | 16 W        |
| PTO   | 404 W       | 16 W        |
| PSB   | 30 W        | 16 W        |
| PCK   | 0 W         | 34 W        |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.00 kW     |
| Annual energy consumption Qhe                       | 16591 kWh   | 4202 kWh    |