

Subtype R290 Monobloc 08/10 kW

|                     |  |
|---------------------|--|
| Certificate Holder  | Qingdao Haier Air Conditioner Electric Co., Ltd.                                 |
| Address             | Haier Development Zone Industrial Park, Economic Development Zone, Qingdao City, |
| ZIP                 |  |
| City                | Shandong Province  |
| Country             | CN   |
| Certification Body  | DIN CERTCO Gesellschaft für Konformitätsbewertung mbH                            |
| Subtype title       | R290 Monobloc 08/10 kW   |
| Registration number | 011-1W0828   |
| Heat Pump Type      | Outdoor Air/Water  |
| Refrigerant         | R290   |
| Mass of Refrigerant | 0.9 kg   |
| Certification Date  | 27.08.2024   |
| Testing basis       | HP KEYMARK certification scheme rules V14  |

**Model AW082MUGHA**

|                                     |                       |
|-------------------------------------|-----------------------|
| Model name                          | AW082MUGHA            |
| Application                         | Heating (medium temp) |
| Units                               | Outdoor               |
| Climate zone (for heating)          | n/a                   |
| 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 | 8.00 kW         | 8.00 kW            |
| El input    | 1.50 kW         | 2.35 kW            |
| COP         | 5.35            | 3.40               |

**EN 12102-1 | Average Climate**

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level outdoor | 59 dB(A)        | 64 dB(A)           |

**EN 14825 | Average Climate**

|                | Low temperature | Medium temperature |
|----------------|-----------------|--------------------|
| $\eta_s$       | 205 %           | 151 %              |
| Prated         | 7.20 kW         | 6.00 kW            |
| SCOP           | 5.20            | 3.85               |
| Tbiv           | -7 °C           | -7 °C              |
| TOL            | -25 °C          | -25 °C             |
| Pdh Tj = -7°C  | 6.34 kW         | 5.28 kW            |
| COP Tj = -7°C  | 3.43            | 2.48               |
| Cdh Tj = -7 °C | 0.900           | 0.900              |
| Pdh Tj = +2°C  | 3.89 kW         | 3.24 kW            |
| COP Tj = +2°C  | 5.01            | 3.65               |
| Cdh Tj = +2 °C | 0.900           | 0.900              |
| Pdh Tj = +7°C  | 2.52 kW         | 2.10 kW            |

|   |             |             |
|---|-------------|-------------|
| COP Tj = +7°C                                       | 6.88        | 5.43        |
| Cdh Tj = +7 °C                                      | 0.900       | 0.900       |
| Pdh Tj = 12°C                                       | 3.56 kW     | 3.22 kW     |
| COP Tj = 12°C                                       | 8.83        | 6.70        |
| Cdh Tj = +12 °C                                     | 0.900       | 0.900       |
| Pdh Tj = Tbiv                                       | 6.34 kW     | 5.28 kW     |
| COP Tj = Tbiv                                       | 3.43        | 2.48        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.11 kW     | 5.95 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.34        | 1.85        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 80 °C       | 80 °C       |
| Poff  | 18 W        | 18 W        |
| PTO   | 18 W        | 18 W        |
| PSB   | 18 W        | 18 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.09 kW     | 0.05 kW     |
| Annual energy consumption Qhe                       | 2866 kWh    | 3223 kWh    |

**Model AW102MUGHA**

|                                     |                       |
|-------------------------------------|-----------------------|
| Model name                          | AW102MUGHA            |
| Application                         | Heating (medium temp) |
| Units                               | Outdoor               |
| Climate zone (for heating)          | n/a                   |
| 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 | 10.00 kW        | 10.00 kW           |
| El input    | 1.96 kW         | 3.13 kW            |
| COP         | 5.10            | 3.20               |

**EN 12102-1 | Average Climate**

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level outdoor | 60 dB(A)        | 66 dB(A)           |

**EN 14825 | Average Climate**

|                | Low temperature | Medium temperature |
|----------------|-----------------|--------------------|
| $\eta_s$       | 201 %           | 150 %              |
| Prated         | 7.20 kW         | 6.00 kW            |
| SCOP           | 5.10            | 3.83               |
| Tbiv           | -7 °C           | -7 °C              |
| TOL            | -25 °C          | -25 °C             |
| Pdh Tj = -7°C  | 6.34 kW         | 5.28 kW            |
| COP Tj = -7°C  | 3.43            | 2.48               |
| Cdh Tj = -7 °C | 0.900           | 0.900              |
| Pdh Tj = +2°C  | 3.89 kW         | 3.24 kW            |
| COP Tj = +2°C  | 4.88            | 3.62               |
| Cdh Tj = +2 °C | 0.900           | 0.900              |
| Pdh Tj = +7°C  | 2.52 kW         | 2.10 kW            |

|   |             |             |
|---|-------------|-------------|
| COP Tj = +7°C                                       | 6.88        | 5.38        |
| Cdh Tj = +7 °C                                      | 0.900       | 0.900       |
| Pdh Tj = 12°C                                       | 3.56 kW     | 3.22 kW     |
| COP Tj = 12°C                                       | 8.83        | 6.66        |
| Cdh Tj = +12 °C                                     | 0.900       | 0.900       |
| Pdh Tj = Tbiv                                       | 6.34 kW     | 5.28 kW     |
| COP Tj = Tbiv                                       | 3.43        | 2.48        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.11 kW     | 5.95 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.30        | 1.84        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 80 °C       | 80 °C       |
| Poff  | 18 W        | 18 W        |
| PTO   | 18 W        | 18 W        |
| PSB   | 18 W        | 18 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.09 kW     | 0.05 kW     |
| Annual energy consumption Qhe                       | 2922 kWh    | 3240 kWh    |

**Model AW10NMUGHA**

|                                     |                       |
|-------------------------------------|-----------------------|
| Model name                          | AW10NMUGHA            |
| Application                         | Heating (medium temp) |
| Units                               | Outdoor               |
| Climate zone (for heating)          | n/a                   |
| Reversibility                       | Yes                   |
| Cooling mode application (optional) | n/a                   |
| Any additional heat sources         | n/a                   |

**General data**

|                  |             |
|------------------|-------------|
| Power supply     | 3x230V 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 | 10.00 kW        | 10.00 kW           |
| El input    | 1.96 kW         | 3.13 kW            |
| COP         | 5.10            | 3.20               |

**EN 12102-1 | Average Climate**

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level outdoor | 60 dB(A)        | 66 dB(A)           |

**EN 14825 | Average Climate**

|                | Low temperature | Medium temperature |
|----------------|-----------------|--------------------|
| $\eta_s$       | 201 %           | 150 %              |
| Prated         | 7.20 kW         | 6.00 kW            |
| SCOP           | 5.10            | 3.83               |
| Tbiv           | -7 °C           | -7 °C              |
| TOL            | -25 °C          | -25 °C             |
| Pdh Tj = -7°C  | 6.34 kW         | 5.28 kW            |
| COP Tj = -7°C  | 3.43            | 2.48               |
| Cdh Tj = -7 °C | 0.900           | 0.900              |
| Pdh Tj = +2°C  | 3.89 kW         | 3.24 kW            |
| COP Tj = +2°C  | 4.88            | 3.62               |
| Cdh Tj = +2 °C | 0.900           | 0.900              |
| Pdh Tj = +7°C  | 2.52 kW         | 2.10 kW            |

|   |             |             |
|---|-------------|-------------|
| COP Tj = +7°C                                       | 6.88        | 5.38        |
| Cdh Tj = +7 °C                                      | 0.900       | 0.900       |
| Pdh Tj = 12°C                                       | 3.56 kW     | 3.22 kW     |
| COP Tj = 12°C                                       | 8.83        | 6.66        |
| Cdh Tj = +12 °C                                     | 0.900       | 0.900       |
| Pdh Tj = Tbiv                                       | 6.34 kW     | 5.28 kW     |
| COP Tj = Tbiv                                       | 3.43        | 2.48        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.11 kW     | 5.95 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.30        | 1.84        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900       | 0.900       |
| WTOL  | 80 °C       | 80 °C       |
| Poff  | 18 W        | 18 W        |
| PTO   | 18 W        | 18 W        |
| PSB   | 18 W        | 18 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.09 kW     | 0.05 kW     |
| Annual energy consumption Qhe                       | 2922 kWh    | 3240 kWh    |