

Subtype FDCW60VNX-W

|                     |  |
|---------------------|--|
| Certificate Holder  | Mitsubishi Heavy Industries Air Conditioning Europe                |
| Address             | 5 The Square   |
| ZIP                 | UB11 1ET   |
| City                | Uxbridge, Middlesex  |
| Country             | GB   |
| Certification Body  | RISE CERT  |
| Subtype title       | FDCW60VNX-W  |
| Registration number | 012-C700397  |
| Heat Pump Type      | Outdoor Air/Water  |
| Refrigerant         | R32  |
| Mass of Refrigerant | 1.3 kg   |
| Certification Date  | 03.06.2025   |
| Testing basis       | EN 14511:2022, EN 14825:2022, EN 16147:2017+A1:2022, EN 12102:2022 |
| Testing laboratory  | KIWA, NL   |

**Model FDCW60VN-X-W + HSB60-W**

|                                     |                        |
|-------------------------------------|------------------------|
| Model name                          | FDCW60VN-X-W + HSB60-W |
| Application                         | Heating (medium temp)  |
| Units                               | Indoor, 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 | 5.10 kW         | 7.50 kW            |
| El input    | 0.99 kW         | 2.82 kW            |
| COP         | 5.16            | 2.64               |

**EN 12102-1 | Average Climate**

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 33 dB(A)        | 33 dB(A)           |
| Sound power level outdoor | 53 dB(A)        | 53 dB(A)           |

**EN 14825 | Average Climate**

|  | Low temperature | Medium temperature |
|--|-----------------|--------------------|
| $\eta_s$                               | 190 %           | 137 %              |
| P <sub>rated</sub>                     | 4.80 kW         | 5.30 kW            |
| SCOP                                   | 4.83            | 3.50               |
| T <sub>biv</sub>                       | -10 °C          | -7 °C              |
| T <sub>OL</sub>                        | -10 °C          | -10 °C             |
| P <sub>dh</sub> T <sub>j</sub> = -7 °C | 4.20 kW         | 4.80 kW            |
| COP T <sub>j</sub> = -7 °C             | 3.06            | 1.95               |
| C <sub>dh</sub> T <sub>j</sub> = -7 °C | 0.980           | 0.980              |
| P <sub>dh</sub> T <sub>j</sub> = +2 °C | 2.60 kW         | 2.90 kW            |
| COP T <sub>j</sub> = +2 °C             | 4.61            | 3.37               |
| C <sub>dh</sub> T <sub>j</sub> = +2 °C | 0.980           | 0.980              |

|   |             |             |
|---|-------------|-------------|
| Pdh Tj = +7°C                                       | 1.70 kW     | 1.90 kW     |
| COP Tj = +7°C                                       | 6.18        | 4.63        |
| Cdh Tj = +7 °C                                      | 0.980       | 0.980       |
| Pdh Tj = 12°C                                       | 2.70 kW     | 2.60 kW     |
| COP Tj = 12°C                                       | 7.96        | 6.14        |
| Cdh Tj = +12 °C                                     | 0.980       | 0.980       |
| Pdh Tj = Tbiv                                       | 4.80 kW     | 4.80 kW     |
| COP Tj = Tbiv                                       | 2.24        | 1.95        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 4.80 kW     | 4.60 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.24        | 1.94        |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.980       | 0.980       |
| WTOL  | 58 °C       | 58 °C       |
| Poff  | 7 W         | 7 W         |
| PTO   | 12 W        | 12 W        |
| PSB   | 12 W        | 12 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.70 kW     |
| Annual energy consumption Qhe                       | 2089 kWh    | 3193 kWh    |

**Model FDCW60VN-X-W + HMS60-W**

|                                     |                        |
|-------------------------------------|------------------------|
| Model name                          | FDCW60VN-X-W + HMS60-W |
| Application                         | Heating (medium temp)  |
| Units                               | Indoor, 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 | 5.10 kW         | 7.50 kW            |
| El input    | 0.99 kW         | 2.82 kW            |
| COP         | 5.16            | 2.64               |

**EN 12102-1 | Average Climate**

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level indoor  | 33 dB(A)        | 33 dB(A)           |
| Sound power level outdoor | 53 dB(A)        | 53 dB(A)           |

**EN 14825 | Average Climate**

|  | Low temperature | Medium temperature |
|--|-----------------|--------------------|
| $\eta_s$                               | 190 %           | 137 %              |
| P <sub>rated</sub>                     | 4.80 kW         | 5.30 kW            |
| SCOP                                   | 4.83            | 3.50               |
| T <sub>biv</sub>                       | -10 °C          | -7 °C              |
| T <sub>OL</sub>                        | -10 °C          | -10 °C             |
| P <sub>dh</sub> T <sub>j</sub> = -7 °C | 4.20 kW         | 4.80 kW            |
| COP T <sub>j</sub> = -7 °C             | 3.06            | 1.95               |
| C <sub>dh</sub> T <sub>j</sub> = -7 °C | 0.980           | 0.980              |
| P <sub>dh</sub> T <sub>j</sub> = +2 °C | 2.60 kW         | 2.90 kW            |
| COP T <sub>j</sub> = +2 °C             | 4.61            | 3.37               |
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|   |             |             |
|---|-------------|-------------|
| Pdh Tj = +7°C                                       | 1.70 kW     | 1.90 kW     |
| COP Tj = +7°C                                       | 6.18        | 4.63        |
| Cdh Tj = +7 °C                                      | 0.980       | 0.980       |
| Pdh Tj = 12°C                                       | 2.70 kW     | 2.60 kW     |
| COP Tj = 12°C                                       | 7.96        | 6.14        |
| Cdh Tj = +12 °C                                     | 0.980       | 0.980       |
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| WTOL  | 58 °C       | 58 °C       |
| Poff  | 7 W         | 7 W         |
| PTO   | 12 W        | 12 W        |
| PSB   | 12 W        | 12 W        |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.70 kW     |
| Annual energy consumption Qhe                       | 2089 kWh    | 3193 kWh    |

**Model FDCW60VN-X-W + HMA60-W**

|                                     |                          |
|-------------------------------------|--------------------------|
| Model name                          | FDCW60VN-X-W + HMA60-W   |
| Application                         | Heating + DHW + low temp |
| Units                               | Indoor, 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 16147 | Average Climate**

|                                 |             |
|---------------------------------|-------------|
| Declared load profile           | XL          |
| Efficiency $\eta_{DHW}$         | 103 %       |
| COP                             | 2.58        |
| Heating up time                 | 01:18 h:min |
| Standby power input             | 38.0 W      |
| Reference hot water temperature | 47.0 °C     |
| Mixed water at 40°C             | 192 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 | 5.10 kW         | 7.50 kW            |
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| $\eta_S$ | 190 %           | 137 %              |

|   |             |             |
|---|-------------|-------------|
| Prated  | 4.80 kW     | 5.30 kW     |
| SCOP  | 4.83        | 3.50        |
| Tbiv  | -10 °C      | -7 °C       |
| TOL   | -10 °C      | -10 °C      |
| Pdh Tj = -7°C                                       | 4.20 kW     | 4.80 kW     |
| COP Tj = -7°C                                       | 3.06        | 1.95        |
| Cdh Tj = -7 °C                                      | 0.980       | 0.980       |
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| COP Tj = +2°C                                       | 4.61        | 3.37        |
| Cdh Tj = +2 °C                                      | 0.980       | 0.980       |
| Pdh Tj = +7°C                                       | 1.70 kW     | 1.90 kW     |
| COP Tj = +7°C                                       | 6.18        | 4.63        |
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| Supplementary Heater: PSUP                          | 0.00 kW     | 0.70 kW     |
| Annual energy consumption Qhe                       | 2089 kWh    | 3193 kWh    |