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|                     |   |          |            |
|---------------------|---|----------|------------|
| Summary of          | Aquarea Monobloc 9-12 kW T-CAP (J Series) + TD30      | Reg. No. | 011-1W0464 |
| Certificate Holder  |   |          |            |
| Name                | Panasonic Marketing Europe GmbH                       |          |            |
| Address             | Hagenauer Strasse 43, Wiesbaden                       | Zip      | 65203      |
| City                | Wiesbaden   | Country  | Germany    |
| Certification Body  | DIN CERTCO Gesellschaft für Konformitätsbewertung mbH |          |            |
| Subtype title       | Aquarea Monobloc 9-12 kW T-CAP (J Series) + TD30      |          |            |
| Heat Pump Type      | Outdoor Air/Water                                     |          |            |
| Refrigerant         | R32   |          |            |
| Mass of Refrigerant | 1.6 kg  |          |            |
| Certification Date  | 10.11.2021  |          |            |
| Testing basis       | HP KEYMARK certification scheme rules rev. 8          |          |            |

# Model: WH-MXC09J3E5 + PAW-TD30C1E5-HI

| Configure model                     |                                |
|-------------------------------------|--------------------------------|
| Model name                          | WH-MXC09J3E5 + PAW-TD30C1E5-HI |
| Application                         | Heating + DHW + low temp       |
| Units                               | Outdoor                        |
| Climate Zone                        | n/a                            |
| Reversibility                       | Yes                            |
| Cooling mode application (optional) | +7°C/12°C                      |

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

## Heating

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

| EN 14511-2  |                 |                    |
|-------------|-----------------|--------------------|
|             | Low temperature | Medium temperature |
| Heat output | 9.00 kW         | 9.00 kW            |
| El input    | 1.77 kW         | 2.92 kW            |
| COP         | 5.08            | 3.08               |

## Average Climate

### EN 12102-1

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level outdoor | 65 dB(A)        | 65 dB(A)           |

### EN 14825

|                | Low temperature | Medium temperature |
|----------------|-----------------|--------------------|
| $\eta_s$       | 195 %           | 140 %              |
| Prated         | 9.00 kW         | 9.00 kW            |
| SCOP           | 4.96            | 3.57               |
| Tbiv           | -10 °C          | -10 °C             |
| TOL            | -10 °C          | -10 °C             |
| Pdh Tj = -7°C  | 8.00 kW         | 8.00 kW            |
| COP Tj = -7°C  | 3.04            | 2.33               |
| Cdh Tj = -7 °C | 1.000           | 1.000              |
| Pdh Tj = +2°C  | 4.90 kW         | 4.90 kW            |
| COP Tj = +2°C  | 4.93            | 3.46               |
| Cdh Tj = +2 °C | 0.990           | 0.990              |
| Pdh Tj = +7°C  | 5.40 kW         | 5.10 kW            |
| COP Tj = +7°C  | 6.26            | 4.48               |
| Cdh Tj = +7 °C | 0.990           | 0.990              |
| Pdh Tj = 12°C  | 6.30 kW         | 6.10 kW            |

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|   |             |             |
|---|-------------|-------------|
| COP Tj = 12°C                                       | 8.19        | 6.02        |
| Cdh Tj = +12 °C                                     | 0.990       | 0.990       |
| Pdh Tj = Tbiv                                       | 9.00 kW     | 9.00 kW     |
| COP Tj = Tbiv                                       | 2.90        | 2.04        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 9.00 kW     | 9.00 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.90        | 2.04        |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 9 W         | 9 W         |
| PTO   | 10 W        | 10 W        |
| PSB   | 9 W         | 9 W         |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.00 kW     |
| Annual energy consumption Qhe                       | 3747 kWh    | 5208 kWh    |

## Cooling

| <b>EN 14511-2</b> |                   |
|-------------------|-------------------|
|                   | <b>+7°C/+12°C</b> |
| El input          | 2.83 kW           |
| Cooling capacity  | 9.00              |
| EER               | 3.18              |

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| <b>EN 14825</b>                           |                   |
|---|-------------------|
|   | <b>+7°C/+12°C</b> |
| P <sub>designc</sub>                      | 9.00 kW           |
| SEER                                      | 4.80              |
| P <sub>dc</sub> T <sub>j</sub> = 35°C     | 9.00 kW           |
| EER T <sub>j</sub> = 35°C                 | 3.18              |
| P <sub>dc</sub> T <sub>j</sub> = 30°C     | 6.63 kW           |
| EER T <sub>j</sub> = 30°C                 | 4.20              |
| C <sub>dc</sub>                           | 0.9               |
| P <sub>dc</sub> T <sub>j</sub> = 25°C     | 4.60 kW           |
| EER T <sub>j</sub> = 25°C                 | 5.32              |
| C <sub>dc</sub>                           | 0.9               |
| P <sub>dc</sub> T <sub>j</sub> = 20°C     | 4.80 kW           |
| EER T <sub>j</sub> = 20°C                 | 6.16              |
| C <sub>dc</sub>                           | 0.9               |
| P <sub>off</sub>                          | 9 W               |
| PTO                                       | 1 W               |
| PSB                                       | 9 W               |
| PCK                                       | 0 W               |
| Annual energy consumption Q <sub>ce</sub> | 656 kWh           |

## Domestic Hot Water (DHW)

## Average Climate

### EN 16147

| EN 16147                        |            |            |
|---------------------------------|------------|------------|
|                                 |            |            |
| Declared load profile           | XL         | XL         |
| Efficiency $\eta_{DHW}$         | 128 %      | 128 %      |
| COP                             | 3.07       | 3.07       |
| Heating up time                 | 1:05 h:min | 1:05 h:min |
| Standby power input             | 50.0 W     | 50.0 W     |
| Reference hot water temperature | 52.0 °C    | 52.0 °C    |
| Mixed water at 40°C             | 384 l      | 384 l      |

# Model: WH-MXC12J6E5 + PAW-TD30C1E5-HI

| Configure model                     |                                |
|-------------------------------------|--------------------------------|
| Model name                          | WH-MXC12J6E5 + PAW-TD30C1E5-HI |
| Application                         | Heating + DHW + low temp       |
| Units                               | Outdoor                        |
| Climate Zone                        | n/a                            |
| Reversibility                       | Yes                            |
| Cooling mode application (optional) | +7°C/12°C                      |

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

## Heating

| EN 14511-2  |                 |                    |
|-------------|-----------------|--------------------|
|             | Low temperature | Medium temperature |
| Heat output | 12.00 kW        | 12.00 kW           |
| El input    | 2.50 kW         | 3.94 kW            |
| COP         | 4.80            | 3.05               |

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

## Average Climate

### EN 12102-1

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level outdoor | 65 dB(A)        | 65 dB(A)           |

### EN 14825

|                | Low temperature | Medium temperature |
|----------------|-----------------|--------------------|
| $\eta_s$       | 195 %           | 140 %              |
| Prated         | 9.00 kW         | 9.00 kW            |
| SCOP           | 4.96            | 3.57               |
| Tbiv           | -10 °C          | -10 °C             |
| TOL            | -10 °C          | -10 °C             |
| Pdh Tj = -7°C  | 8.00 kW         | 8.00 kW            |
| COP Tj = -7°C  | 3.04            | 2.33               |
| Cdh Tj = -7 °C | 1.000           | 1.000              |
| Pdh Tj = +2°C  | 4.90 kW         | 4.90 kW            |
| COP Tj = +2°C  | 4.93            | 3.46               |
| Cdh Tj = +2 °C | 0.990           | 0.990              |
| Pdh Tj = +7°C  | 5.40 kW         | 5.10 kW            |
| COP Tj = +7°C  | 6.26            | 4.48               |
| Cdh Tj = +7 °C | 0.990           | 0.990              |
| Pdh Tj = 12°C  | 6.30 kW         | 6.10 kW            |



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|   |             |             |
|---|-------------|-------------|
| COP Tj = 12°C                                       | 8.19        | 6.02        |
| Cdh Tj = +12 °C                                     | 0.990       | 0.990       |
| Pdh Tj = Tbiv                                       | 9.00 kW     | 9.00 kW     |
| COP Tj = Tbiv                                       | 2.90        | 2.04        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 9.00 kW     | 9.00 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.90        | 2.04        |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 9 W         | 9 W         |
| PTO   | 10 W        | 10 W        |
| PSB   | 9 W         | 9 W         |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.00 kW     |
| Annual energy consumption Qhe                       | 3747 kWh    | 5208 kWh    |

## Cooling

**EN 14825**

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|   |                   |
|---|-------------------|
|   | <b>+7°C/+12°C</b> |
| P <sub>designc</sub>                      | 12.00 kW          |
| SEER                                      | 4.79              |
| P <sub>dc</sub> T <sub>j</sub> = 35°C     | 12.00 kW          |
| EER T <sub>j</sub> = 35°C                 | 2.90              |
| P <sub>dc</sub> T <sub>j</sub> = 30°C     | 8.84 kW           |
| EER T <sub>j</sub> = 30°C                 | 4.02              |
| C <sub>dc</sub>                           | 0.9               |
| P <sub>dc</sub> T <sub>j</sub> = 25°C     | 5.68 kW           |
| EER T <sub>j</sub> = 25°C                 | 5.40              |
| C <sub>dc</sub>                           | 0.9               |
| P <sub>dc</sub> T <sub>j</sub> = 20°C     | 4.90 kW           |
| EER T <sub>j</sub> = 20°C                 | 6.30              |
| C <sub>dc</sub>                           | 0.9               |
| P <sub>off</sub>                          | 9 W               |
| PTO                                       | 1 W               |
| PSB                                       | 9 W               |
| PCK                                       | 0 W               |
| Annual energy consumption Q <sub>ce</sub> | 878 kWh           |

| <b>EN 14511-2</b> |                   |
|-------------------|-------------------|
|                   | <b>+7°C/+12°C</b> |
| El input          | 4.14 kW           |
| Cooling capacity  | 12.00             |
| EER               | 2.90              |

## Domestic Hot Water (DHW)

### Average Climate

| <b>EN 16147</b>                 |            |
|---------------------------------|------------|
|                                 |            |
| Declared load profile           | XL         |
| Efficiency $\eta_{DHW}$         | 128 %      |
| COP                             | 3.07       |
| Heating up time                 | 1:05 h:min |
| Standby power input             | 50.0 W     |
| Reference hot water temperature | 52.0 °C    |
| Mixed water at 40°C             | 384 l      |

# Model: WH-MXC09J3E8 + PAW-TD30C1E5-HI

| Configure model                     |                                |
|-------------------------------------|--------------------------------|
| Model name                          | WH-MXC09J3E8 + PAW-TD30C1E5-HI |
| Application                         | Heating + DHW + low temp       |
| Units                               | Outdoor                        |
| Climate Zone                        | n/a                            |
| Reversibility                       | Yes                            |
| Cooling mode application (optional) | +7°C/12°C                      |

| 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 |
| Starting and operating test                | passed |

| EN 14511-2  |                 |                    |
|-------------|-----------------|--------------------|
|             | Low temperature | Medium temperature |
| Heat output | 9.00 kW         | 9.00 kW            |
| El input    | 1.77 kW         | 2.92 kW            |
| COP         | 5.08            | 3.08               |

## Average Climate

### EN 12102-1

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level outdoor | 65 dB(A)        | 65 dB(A)           |

### EN 14825

|                | Low temperature | Medium temperature |
|----------------|-----------------|--------------------|
| $\eta_s$       | 195 %           | 140 %              |
| Prated         | 9.00 kW         | 9.00 kW            |
| SCOP           | 4.96            | 3.57               |
| Tbiv           | -10 °C          | -10 °C             |
| TOL            | -10 °C          | -10 °C             |
| Pdh Tj = -7°C  | 8.00 kW         | 8.00 kW            |
| COP Tj = -7°C  | 3.04            | 2.33               |
| Cdh Tj = -7 °C | 1.000           | 1.000              |
| Pdh Tj = +2°C  | 4.90 kW         | 4.90 kW            |
| COP Tj = +2°C  | 4.93            | 3.46               |
| Cdh Tj = +2 °C | 0.990           | 0.990              |
| Pdh Tj = +7°C  | 5.40 kW         | 5.10 kW            |
| COP Tj = +7°C  | 6.26            | 4.48               |
| Cdh Tj = +7 °C | 0.990           | 0.990              |
| Pdh Tj = 12°C  | 6.30 kW         | 6.10 kW            |

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|   |             |             |
|---|-------------|-------------|
| COP Tj = 12°C                                       | 8.19        | 6.02        |
| Cdh Tj = +12 °C                                     | 0.990       | 0.990       |
| Pdh Tj = Tbiv                                       | 9.00 kW     | 9.00 kW     |
| COP Tj = Tbiv                                       | 2.90        | 2.04        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 9.00 kW     | 9.00 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.90        | 2.04        |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 9 W         | 9 W         |
| PTO   | 10 W        | 10 W        |
| PSB   | 9 W         | 9 W         |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.00 kW     |
| Annual energy consumption Qhe                       | 3747 kWh    | 5208 kWh    |

## Cooling

| <b>EN 14511-2</b> |                   |
|-------------------|-------------------|
|                   | <b>+7°C/+12°C</b> |
| El input          | 2.83 kW           |
| Cooling capacity  | 9.00              |
| EER               | 3.18              |

| <b>EN 14825</b>                           |                   |
|---|-------------------|
|   | <b>+7°C/+12°C</b> |
| P <sub>designc</sub>                      | 9.00 kW           |
| SEER                                      | 4.80              |
| P <sub>dc</sub> T <sub>j</sub> = 35°C     | 9.00 kW           |
| EER T <sub>j</sub> = 35°C                 | 3.18              |
| P <sub>dc</sub> T <sub>j</sub> = 30°C     | 6.63 kW           |
| EER T <sub>j</sub> = 30°C                 | 4.20              |
| C <sub>dc</sub>                           | 0.9               |
| P <sub>dc</sub> T <sub>j</sub> = 25°C     | 4.60 kW           |
| EER T <sub>j</sub> = 25°C                 | 5.32              |
| C <sub>dc</sub>                           | 0.9               |
| P <sub>dc</sub> T <sub>j</sub> = 20°C     | 4.80 kW           |
| EER T <sub>j</sub> = 20°C                 | 6.16              |
| C <sub>dc</sub>                           | 0.9               |
| P <sub>off</sub>                          | 9 W               |
| PTO                                       | 1 W               |
| PSB                                       | 9 W               |
| PCK                                       | 0 W               |
| Annual energy consumption Q <sub>ce</sub> | 656 kWh           |

## Domestic Hot Water (DHW)

## Average Climate

### EN 16147

| Declared load profile           | XL         | XL         |
|---------------------------------|------------|------------|
| Efficiency $\eta_{DHW}$         | 128 %      | 128 %      |
| COP                             | 3.07       | 3.07       |
| Heating up time                 | 1:05 h:min | 1:05 h:min |
| Standby power input             | 50.0 W     | 50.0 W     |
| Reference hot water temperature | 52.0 °C    | 52.0 °C    |
| Mixed water at 40°C             | 384 l      | 384 l      |



# Model: WH-MXC12J9E8 + PAW-TD30C1E5-HI

| Configure model                     |                                |
|-------------------------------------|--------------------------------|
| Model name                          | WH-MXC12J9E8 + PAW-TD30C1E5-HI |
| Application                         | Heating + DHW + low temp       |
| Units                               | Outdoor                        |
| Climate Zone                        | n/a                            |
| Reversibility                       | Yes                            |
| Cooling mode application (optional) | +7°C/12°C                      |

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

## Heating

| EN 14511-2  |                 |                    |
|-------------|-----------------|--------------------|
|             | Low temperature | Medium temperature |
| Heat output | 12.00 kW        | 12.00 kW           |
| El input    | 2.50 kW         | 3.94 kW            |
| COP         | 4.80            | 3.05               |

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

## Average Climate

### EN 12102-1

|                           | Low temperature | Medium temperature |
|---------------------------|-----------------|--------------------|
| Sound power level outdoor | 65 dB(A)        | 65 dB(A)           |

### EN 14825

|                | Low temperature | Medium temperature |
|----------------|-----------------|--------------------|
| $\eta_s$       | 195 %           | 140 %              |
| Prated         | 9.00 kW         | 9.00 kW            |
| SCOP           | 4.96            | 3.57               |
| Tbiv           | -10 °C          | -10 °C             |
| TOL            | -10 °C          | -10 °C             |
| Pdh Tj = -7°C  | 8.00 kW         | 8.00 kW            |
| COP Tj = -7°C  | 3.04            | 2.33               |
| Cdh Tj = -7 °C | 1.000           | 1.000              |
| Pdh Tj = +2°C  | 4.90 kW         | 4.90 kW            |
| COP Tj = +2°C  | 4.93            | 3.46               |
| Cdh Tj = +2 °C | 0.990           | 0.990              |
| Pdh Tj = +7°C  | 5.40 kW         | 5.10 kW            |
| COP Tj = +7°C  | 6.26            | 4.48               |
| Cdh Tj = +7 °C | 0.990           | 0.990              |
| Pdh Tj = 12°C  | 6.30 kW         | 6.10 kW            |

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|   |             |             |
|---|-------------|-------------|
| COP Tj = 12°C                                       | 8.19        | 6.02        |
| Cdh Tj = +12 °C                                     | 0.990       | 0.990       |
| Pdh Tj = Tbiv                                       | 9.00 kW     | 9.00 kW     |
| COP Tj = Tbiv                                       | 2.90        | 2.04        |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 9.00 kW     | 9.00 kW     |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.90        | 2.04        |
| WTOL  | 55 °C       | 55 °C       |
| Poff  | 9 W         | 9 W         |
| PTO   | 10 W        | 10 W        |
| PSB   | 9 W         | 9 W         |
| PCK   | 0 W         | 0 W         |
| Supplementary Heater: Type of energy input          | Electricity | Electricity |
| Supplementary Heater: PSUP                          | 0.00 kW     | 0.00 kW     |
| Annual energy consumption Qhe                       | 3747 kWh    | 5208 kWh    |

## Cooling

**EN 14825**

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

|   |                   |
|---|-------------------|
|   | <b>+7°C/+12°C</b> |
| P <sub>designc</sub>                      | 12.00 kW          |
| SEER                                      | 4.79              |
| P <sub>dc</sub> T <sub>j</sub> = 35°C     | 12.00 kW          |
| EER T <sub>j</sub> = 35°C                 | 2.90              |
| P <sub>dc</sub> T <sub>j</sub> = 30°C     | 8.84 kW           |
| EER T <sub>j</sub> = 30°C                 | 4.02              |
| C <sub>dc</sub>                           | 0.9               |
| P <sub>dc</sub> T <sub>j</sub> = 25°C     | 5.68 kW           |
| EER T <sub>j</sub> = 25°C                 | 5.40              |
| C <sub>dc</sub>                           | 0.9               |
| P <sub>dc</sub> T <sub>j</sub> = 20°C     | 4.90 kW           |
| EER T <sub>j</sub> = 20°C                 | 6.30              |
| C <sub>dc</sub>                           | 0.9               |
| P <sub>off</sub>                          | 9 W               |
| PTO                                       | 1 W               |
| PSB                                       | 9 W               |
| PCK                                       | 0 W               |
| Annual energy consumption Q <sub>ce</sub> | 878 kWh           |

| <b>EN 14511-2</b> |                   |
|-------------------|-------------------|
|                   | <b>+7°C/+12°C</b> |
| El input          | 4.14 kW           |
| Cooling capacity  | 12.00             |
| EER               | 2.90              |

## Domestic Hot Water (DHW)

### Average Climate

| <b>EN 16147</b>                 |            |
|---------------------------------|------------|
|                                 |            |
| Declared load profile           | XL         |
| Efficiency $\eta_{DHW}$         | 128 %      |
| COP                             | 3.07       |
| Heating up time                 | 1:05 h:min |
| Standby power input             | 50.0 W     |
| Reference hot water temperature | 52.0 °C    |
| Mixed water at 40°C             | 384 l      |