

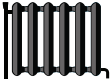


ENERG
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Y IJA
IE IA



Indoor unit E*SD-****D
Outdoor unit PUD-SHWM100VAA(-BS)



55 °C

35 °C



A++

A+++

41 dB

59 dB

10 kW

10 kW

2019

811/2013

BH79V004H07

| | | | | |
|--|---|---|---|--|
| English | Deutsch | Français | Italiano | Espanol |
| Nederlands | Svenska | Polski | Português | Ελληνικά |
| suomi | Čeština | Български | PolSKI | Ελληνικά |
| Outdoor unit | Außengerät | unit extérieure | unità esterna | unidad exterior |
| 1 built-in unit | Utløst enhed | Utløst enhed | unità esteriore | Εξωτερική μονάδα |
| Ulkokotkko | Vaikovi/ Jedinika | Выходь тило | jednostka zewnętrzna | μονάδα εξωτερική |
| Indoor unit | Innengerät | unit intérieure | unità interna | unidad interior |
| 2 binnenunit | Innenventil | Innenventil | unità interio | Εσωτερική μονάδα |
| Sisäyksyksikkö | Vahinli Jedinika | Вътрешно тило | jednostka wewnętrzna | μονάδα εσωτερική |
| Medium-temperature application | Mitteltemperaturanwendung | l'applicazioni a mezzae temperatura | la aplicación a media temperatura | η εφαρμογή σε μετρί θερμοκρασία |
| 3 middle-temperature-cooling | mitteltemperaturabkühlung | middle-temperature-cooling | a aplicación a media temperatura | η εφαρμογή σε μετρί θερμοκρασία |
| Keskilämpötilan sovellus | středníteplotní aplikace | среднетемпературного применения | zasloužená v střední teplotě | - |
| Low-temperature application | Niedertemperaturanwendung | l'applicazioni a basse temperature | la aplicación a bajas temperaturas | η εφαρμογή σε χαμηλή θερμοκρασία |
| 4 laagtemperatuur-cooling | lagertemperaturabkühlung | la aplicación a baja temperatura | a aplicación a baja temperatura | η εφαρμογή σε χαμηλή θερμοκρασία |
| malalämpötilan sovellus | nizkotéplotní aplikace | низкотемпературны применения | zasloužená v nízkých teplotách | - |
| 5 de seizoensgebonden energie-efficiëntieklassen voor ruimteverwarming | de seizoensgebonden energie-efficiëntieklassen voor ruimteverwarming | de classe de efficacité énergétique saisonnière, pour le chauffage des locaux | la classe de efficacité énergétique saisonnière de riscaldamento d'ambiente | η τάξη ενεργειακής αποδοτικότητας εποχιακής για θέρμανση χώρων |
| 6 de energie-efficiëntieklassen voor waterverwarming | de energie-efficiëntieklassen voor waterverwarming | la puissance thermique nominale dans les conditions climatiques moyennes | la puissance thermique nominale dans les conditions climatiques moyennes | η ονομαστική θερμική ισχύς υπό μετρίες κλιματικές συνθήκες |
| 7 de nominale vermogen/groter gemiddelde klimaatomstandigheden | de nominale vermogen/groter gemiddelde klimaatomstandigheden | la puissance nominale (under gemiddeltige klimaatförhållanden) | la potencia nominale (en condiciones climáticas medias) | η ονομαστική θερμική ισχύς υπό μετρίες κλιματικές συνθήκες |
| 8 voor ruimteverwarming, het jaarlijkse energieverbruik(onder gemiddelde klimaatomstandigheden) | voor ruimteverwarming, het jaarlijkse energieverbruik(onder gemiddelde klimaatomstandigheden) | for programming of the air conditioning under normal climate conditions | per il riscaldamento d'ambiente, il consumo annuo di energia(in condizioni climatiche medie) | για την θέρμανση χώρων, η ετήσια κατανάλωση ενέργειας(υπό μετρίες κλιματικές συνθήκες) |
| 9 voor waterverwarming, het jaarlijkse elektriciteitsverbruik(onder gemiddelde klimaatomstandigheden) | voor waterverwarming, het jaarlijkse elektriciteitsverbruik(onder gemiddelde klimaatomstandigheden) | for water heating, annual electricity consumption under average climate conditions | per il riscaldamento dell'acqua, il consumo annuo di energia(in condizioni climatiche medie) | για την θέρμανση ύδατος, η ετήσια κατανάλωση ηλεκτρικής ενέργειας(υπό μετρίες κλιματικές συνθήκες) |
| 10 de seizoensgebonden energie-efficiëntie voor ruimteverwarming(onder gemiddelde klimaatomstandigheden) | de seizoensgebonden energie-efficiëntie voor ruimteverwarming(onder gemiddelde klimaatomstandigheden) | la puissance énergétique saisonnière pour le chauffage des locaux(dans les conditions climatiques moyennes) | la eficiencia energética de acondicionamiento de ambientes (en condiciones climáticas medias) | η ενεργειακή αποδοτικότητα εποχιακής για θέρμανση χώρων(υπό μετρίες κλιματικές συνθήκες) |
| 11 de energie-efficiëntie voor waterverwarming(onder gemiddelde klimaatomstandigheden) | de energie-efficiëntie voor waterverwarming(onder gemiddelde klimaatomstandigheden) | la puissance énergétique saisonnière pour le chauffage des locaux(dans les conditions climatiques moyennes) | la eficiencia energética de calentamiento de agua(en condiciones climáticas medias) | η ενεργειακή αποδοτικότητα εποχιακής για θέρμανση ύδατος(υπό μετρίες κλιματικές συνθήκες) |
| 12 het gebruiksvolume/verbruik van binnen | gebruiksvolume/verbruik van binnen | la puissance nominale (under gemiddeltige klimaatförhållanden) | la potencia nominale (en condiciones climáticas medias) | η ονομαστική θερμική ισχύς υπό μετρίες κλιματικές συνθήκες |
| 13 de nominale vermogen/groter gemiddelde klimaatomstandigheden | de nominale vermogen/groter gemiddelde klimaatomstandigheden | la puissance nominale (under gemiddeltige klimaatförhållanden) | la potencia nominale (en condiciones climáticas medias) | η ονομαστική θερμική ισχύς υπό μετρίες κλιματικές συνθήκες |
| 14 de nominale vermogen/groter gemiddelde klimaatomstandigheden | de nominale vermogen/groter gemiddelde klimaatomstandigheden | la puissance nominale (under gemiddeltige klimaatförhållanden) | la potencia nominale (en condiciones climáticas medias) | η ονομαστική θερμική ισχύς υπό μετρίες κλιματικές συνθήκες |
| 15 de nominale vermogen/groter gemiddelde klimaatomstandigheden | de nominale vermogen/groter gemiddelde klimaatomstandigheden | la puissance nominale (under gemiddeltige klimaatförhållanden) | la potencia nominale (en condiciones climáticas medias) | η ονομαστική θερμική ισχύς υπό μετρίες κλιματικές συνθήκες |
| 16 voor ruimteverwarming, het jaarlijkse energieverbruik(onder koudeere klimaatomstandigheden) | voor ruimteverwarming, het jaarlijkse energieverbruik(onder koudeere klimaatomstandigheden) | for programming of the air conditioning under cold climate conditions | per il riscaldamento d'ambiente, il consumo annuo di energia, in condizioni climatiche più fredde | για θέρμανση χώρων, η ετήσια κατανάλωση ενέργειας(υπό ψυχρότερες κλιματικές συνθήκες) |
| 17 voor ruimteverwarming, het jaarlijkse energieverbruik(onder koudeere klimaatomstandigheden) | voor ruimteverwarming, het jaarlijkse energieverbruik(onder koudeere klimaatomstandigheden) | for programming of the air conditioning under cold climate conditions | per il riscaldamento d'ambiente, il consumo annuo di energia, in condizioni climatiche più fredde | για θέρμανση χώρων, η ετήσια κατανάλωση ενέργειας(υπό ψυχρότερες κλιματικές συνθήκες) |
| 18 voor waterverwarming, het jaarlijkse elektriciteitsverbruik(onder koudeere klimaatomstandigheden) | voor waterverwarming, het jaarlijkse elektriciteitsverbruik(onder koudeere klimaatomstandigheden) | for water heating, annual electricity consumption under cold climate conditions | per il riscaldamento dell'acqua, il consumo annuo di energia, in condizioni climatiche più fredde e più calde | για θέρμανση ύδατος, η ετήσια κατανάλωση ηλεκτρικής ενέργειας(υπό ψυχρότερες κλιματικές συνθήκες) |
| 19 voor waterverwarming, het jaarlijkse elektriciteitsverbruik(onder koudeere klimaatomstandigheden) | voor waterverwarming, het jaarlijkse elektriciteitsverbruik(onder koudeere klimaatomstandigheden) | for water heating, annual electricity consumption under cold climate conditions | per il riscaldamento dell'acqua, il consumo annuo di energia, in condizioni climatiche più fredde e più calde | για θέρμανση ύδατος, η ετήσια κατανάλωση ηλεκτρικής ενέργειας(υπό ψυχρότερες κλιματικές συνθήκες) |
| 20 de seizoensgebonden energie-efficiëntie voor ruimteverwarming(onder koudeere klimaatomstandigheden) | de seizoensgebonden energie-efficiëntie voor ruimteverwarming(onder koudeere klimaatomstandigheden) | la puissance énergétique saisonnière pour le chauffage des locaux, dans les conditions climatiques plus froides | la eficiencia energética estacional de calefacción en condiciones climáticas más frías | η ενεργειακή αποδοτικότητα εποχιακής για θέρμανση χώρων(υπό ψυχρότερες κλιματικές συνθήκες) |
| 21 de seizoensgebonden energie-efficiëntie voor ruimteverwarming(onder koudeere klimaatomstandigheden) | de seizoensgebonden energie-efficiëntie voor ruimteverwarming(onder koudeere klimaatomstandigheden) | la puissance énergétique saisonnière pour le chauffage des locaux, dans les conditions climatiques plus froides | la eficiencia energética estacional de calefacción en condiciones climáticas más frías | η ενεργειακή αποδοτικότητα εποχιακής για θέρμανση χώρων(υπό ψυχρότερες κλιματικές συνθήκες) |
| 22 de energie-efficiëntie voor waterverwarming(onder koudeere klimaatomstandigheden) | de energie-efficiëntie voor waterverwarming(onder koudeere klimaatomstandigheden) | la puissance énergétique saisonnière pour le chauffage des locaux, dans les conditions climatiques plus froides | la eficiencia energética de calentamiento de agua en condiciones climáticas más frías | η ενεργειακή αποδοτικότητα εποχιακής για θέρμανση ύδατος(υπό ψυχρότερες κλιματικές συνθήκες) |
| 23 de energie-efficiëntie voor waterverwarming(onder koudeere klimaatomstandigheden) | de energie-efficiëntie voor waterverwarming(onder koudeere klimaatomstandigheden) | la puissance énergétique saisonnière pour le chauffage des locaux, dans les conditions climatiques plus froides | la eficiencia energética de calentamiento de agua en condiciones climáticas más frías | η ενεργειακή αποδοτικότητα εποχιακής για θέρμανση ύδατος(υπό ψυχρότερες κλιματικές συνθήκες) |
| 24 de energie-efficiëntie voor waterverwarming(onder koudeere klimaatomstandigheden) | de energie-efficiëntie voor waterverwarming(onder koudeere klimaatomstandigheden) | la puissance énergétique saisonnière pour le chauffage des locaux, dans les conditions climatiques plus froides | la eficiencia energética de calentamiento de agua en condiciones climáticas más frías | η ενεργειακή αποδοτικότητα εποχιακής για θέρμανση ύδατος(υπό ψυχρότερες κλιματικές συνθήκες) |

| | | |
|---------------------------------------|---------------|---------------------------------|
| Model(s): | Outdoor unit: | PUD-SHWM100VAA |
| | Indoor unit: | EHSD-**** |
| Air-to-water heat pump: | | yes |
| Water-to-water heat pump: | | no |
| Brine-to-water heat pump: | | no |
| Low-temperature heat pump: | | no |
| Equipped with a supplementary heater: | | yes |
| Heat pump combination heater: | | no |
| Parameters shall be declared for | | medium-temperature application. |
| Parameters shall be declared for | | average climate conditions. |

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|---|------------------|-------|------|--|------------------|-------|------|
| Rated heat output (*) | Prated | 10.0 | kW | Seasonal space heating energy efficiency | η_s | 136 | % |
| Declared capacity for heating for part load at indoor <input type="checkbox"/> temperature 20 °C and outdoor temperature T _j | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j | | | |
| T _j = - 7 °C | P _{dh} | 8.9 | kW | T _j = - 7 °C | COP _d | 2.18 | - |
| Degradation co-efficient (**) | C _{dh} | 0.99 | - | | | | |
| T _j = + 2 °C | P _{dh} | 5.4 | kW | T _j = + 2 °C | COP _d | 3.29 | - |
| Degradation co-efficient (**) | C _{dh} | 0.99 | - | | | | |
| T _j = + 7 °C | P _{dh} | 5.2 | kW | T _j = + 7 °C | COP _d | 4.81 | - |
| Degradation co-efficient (**) | C _{dh} | 0.98 | - | | | | |
| T _j = +12 °C | P _{dh} | 3.6 | kW | T _j = +12 °C | COP _d | 7.06 | - |
| Degradation co-efficient (**) | C _{dh} | 0.97 | - | | | | |
| T _j = bivalent temperature | P _{dh} | 10.0 | kW | T _j = bivalent temperature | COP _d | 1.91 | - |
| T _j = operation limit temperature | P _{dh} | 7.7 | kW | T _j = operation limit temperature | COP _d | 1.57 | - |
| T _j = - 15 °C (if TOL < - 20 °C) | P _{dh} | - | kW | T _j = - 15 °C (if TOL < - 20 °C) | COP _d | - | - |
| Bivalent temperature | T _{biv} | -10 | °C | Operation limit temperature | TOL | -28 | °C |
| | | | | Heating water operating limit temperature | WTOL | 60 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | P _{OFF} | 0.015 | kW | Rated heat output (*) | P _{sup} | 0.0 | kW |
| Thermostat-off mode | P _{TO} | 0.015 | kW | | | | |
| Standby mode | P _{SB} | 0.015 | kW | Type of energy input | Electrical | | |
| Crankcase heater mode | P _{CK} | 0.000 | kW | | | | |

| | | | | | | | |
|-------------------------------------|-----------------|-------|-------|-------------------------------|------|-------------------|--|
| Other items | | | | Rated air flow rate, outdoors | | | |
| Capacity control | variable | | | - | 2640 | m ³ /h | |
| Sound power level, indoors/outdoors | L _{WA} | 41/59 | dB(A) | | | | |
| Annual energy consumption | Q _{HE} | 5836 | kWh | | | | |

| | | | | | | | |
|-----------------------------------|-------------------|---|------|---------------------------------|-------------|---|---|
| For heat pump combination heater: | | | | | | | |
| Declared load profile | - | | | Water heating energy efficiency | η_{wh} | - | % |
| Daily electricity consumption | Q _{elec} | - | kW/h | | | | |
| Annual electricity consumption | AEC | - | kW/h | | | | |

Contact details

MITSUBISHI ELECTRIC AIR CODITIONING SYSTEM EUROPE LTD Nettlehill Road, Houston Industrial Estate, Livingston, EH54 5EQ, Scotland, U.K.

(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).

(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

| | | |
|---------------------------------------|---------------|------------------------------|
| Model(s): | Outdoor unit: | PUD-SHWM100VAA |
| | Indoor unit: | EHSD-**** |
| Air-to-water heat pump: | | yes |
| Water-to-water heat pump: | | no |
| Brine-to-water heat pump: | | no |
| Low-temperature heat pump: | | no |
| Equipped with a supplementary heater: | | yes |
| Heat pump combination heater: | | no |
| Parameters shall be declared for | | low-temperature application. |
| Parameters shall be declared for | | average climate conditions. |

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|---|------------------|-------|------|--|------------------|-------|------|
| Rated heat output (*) | Prated | 10.0 | kW | Seasonal space heating energy efficiency | η_s | 180 | % |
| Declared capacity for heating for part load at indoor <input type="checkbox"/> temperature 20 °C and outdoor temperature Tj | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj | | | |
| Tj = - 7 °C | Pdh | 8.9 | kW | Tj = - 7 °C | COPd | 3.16 | - |
| Degradation co-efficient (**) | Cdh | 0.99 | - | | | | |
| Tj = + 2 °C | Pdh | 5.7 | kW | Tj = + 2 °C | COPd | 4.52 | - |
| Degradation co-efficient (**) | Cdh | 0.98 | - | | | | |
| Tj = + 7 °C | Pdh | 5.4 | kW | Tj = + 7 °C | COPd | 5.63 | - |
| Degradation co-efficient (**) | Cdh | 0.98 | - | | | | |
| Tj = +12 °C | Pdh | 4.5 | kW | Tj = +12 °C | COPd | 7.89 | - |
| Degradation co-efficient (**) | Cdh | 0.97 | - | | | | |
| Tj = bivalent temperature | Pdh | 10.0 | kW | Tj = bivalent temperature | COPd | 2.92 | - |
| Tj = operation limit temperature | Pdh | 7.7 | kW | Tj = operation limit temperature | COPd | 1.57 | - |
| Tj = - 15 °C (if TOL < - 20 °C) | Pdh | - | kW | Tj = - 15 °C (if TOL < - 20 °C) | COPd | - | - |
| Bivalent temperature | Tbiv | -10 | °C | Operation limit temperature | TOL | -28 | °C |
| | | | | Heating water operating limit temperature | WTOL | 60 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | P _{OFF} | 0.015 | kW | Rated heat output (*) | P _{sup} | 0.0 | kW |
| Thermostat-off mode | P _{TO} | 0.015 | kW | | | | |
| Standby mode | P _{SB} | 0.015 | kW | Type of energy input | Electrical | | |
| Crankcase heater mode | P _{CK} | 0.000 | kW | | | | |

| Other items | | | |
|-------------------------------------|-----------------|----------|-------------------|
| Capacity control | | variable | |
| Sound power level, indoors/outdoors | L _{WA} | 41/59 | dB(A) |
| Annual energy consumption | Q _{HE} | 4430 | kWh |
| Rated air flow rate, outdoors | | 2640 | m ³ /h |

| For heat pump combination heater: | | | |
|-----------------------------------|-------------------|---|-----|
| Declared load profile | | - | |
| Daily electricity consumption | Q _{elec} | - | kWh |
| Annual electricity consumption | AEC | - | kWh |
| Water heating energy efficiency | η_{wh} | - | % |

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(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).

(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

| | | |
|---------------------------------------|---------------|---------------------------------|
| Model(s): | Outdoor unit: | PUD-SHWM100VAA |
| | Indoor unit: | EHSD-**** |
| Air-to-water heat pump: | | yes |
| Water-to-water heat pump: | | no |
| Brine-to-water heat pump: | | no |
| Low-temperature heat pump: | | no |
| Equipped with a supplementary heater: | | yes |
| Heat pump combination heater: | | no |
| Parameters shall be declared for | | medium-temperature application. |
| Parameters shall be declared for | | colder climate conditions. |

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|---|------------------|-------|------|--|------------------|-------|------|
| Rated heat output (*) | Prated | 10.0 | kW | Seasonal space heating energy efficiency | η_s | 115 | % |
| Declared capacity for heating for part load at indoor <input type="checkbox"/> temperature 20 °C and outdoor temperature T _j | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j | | | |
| T _j = - 7 °C | P _{dh} | 6.1 | kW | T _j = - 7 °C | COP _d | 2.60 | - |
| Degradation co-efficient (**) | C _{dh} | 0.99 | - | | | | |
| T _j = + 2 °C | P _{dh} | 3.7 | kW | T _j = + 2 °C | COP _d | 3.19 | - |
| Degradation co-efficient (**) | C _{dh} | 0.98 | - | | | | |
| T _j = + 7 °C | P _{dh} | 3.8 | kW | T _j = + 7 °C | COP _d | 4.58 | - |
| Degradation co-efficient (**) | C _{dh} | 0.98 | - | | | | |
| T _j = +12 °C | P _{dh} | 4.4 | kW | T _j = +12 °C | COP _d | 6.88 | - |
| Degradation co-efficient (**) | C _{dh} | 0.97 | - | | | | |
| T _j = bivalent temperature | P _{dh} | 8.4 | kW | T _j = bivalent temperature | COP _d | 1.56 | - |
| T _j = operation limit temperature | P _{dh} | 7.7 | kW | T _j = operation limit temperature | COP _d | 1.57 | - |
| T _j = - 15 °C (if TOL < - 20 °C) | P _{dh} | 8.5 | kW | T _j = - 15 °C (if TOL < - 20 °C) | COP _d | 1.56 | - |
| Bivalent temperature | T _{biv} | -16 | °C | Operation limit temperature | TOL | -28 | °C |
| | | | | Heating water operating limit temperature | WTOL | 60 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | P _{OFF} | 0.015 | kW | Rated heat output (*) | P _{sup} | 2.0 | kW |
| Thermostat-off mode | P _{TO} | 0.015 | kW | | | | |
| Standby mode | P _{SB} | 0.015 | kW | Type of energy input | Electrical | | |
| Crankcase heater mode | P _{CK} | 0.000 | kW | | | | |

| | | | | | | | |
|-------------------------------------|-----------------|-------|-------|-------------------------------|------|-------------------|--|
| Other items | | | | Rated air flow rate, outdoors | | | |
| Capacity control | variable | | | - | 2640 | m ³ /h | |
| Sound power level, indoors/outdoors | L _{WA} | 41/59 | dB(A) | | | | |
| Annual energy consumption | Q _{HE} | 7924 | kWh | | | | |

| | | | | | | | |
|-----------------------------------|-------------------|---|------|---------------------------------|-------------|---|---|
| For heat pump combination heater: | | | | | | | |
| Declared load profile | - | | | Water heating energy efficiency | η_{wh} | - | % |
| Daily electricity consumption | Q _{elec} | - | kW/h | | | | |
| Annual electricity consumption | AEC | - | kW/h | | | | |

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(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).

(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

| | | |
|---------------------------------------|---------------|------------------------------|
| Model(s): | Outdoor unit: | PUD-SHWM100VAA |
| | Indoor unit: | EHSD-**** |
| Air-to-water heat pump: | | yes |
| Water-to-water heat pump: | | no |
| Brine-to-water heat pump: | | no |
| Low-temperature heat pump: | | no |
| Equipped with a supplementary heater: | | yes |
| Heat pump combination heater: | | no |
| Parameters shall be declared for | | low-temperature application. |
| Parameters shall be declared for | | colder climate conditions. |

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|---|------------------|-------|------|--|------------------|-------|------|
| Rated heat output (*) | Prated | 10.0 | kW | Seasonal space heating energy efficiency | η_s | 149 | % |
| Declared capacity for heating for part load at indoor <input type="checkbox"/> temperature 20 °C and outdoor temperature T _j | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j | | | |
| T _j = - 7 °C | P _{dh} | 6.2 | kW | T _j = - 7 °C | COP _d | 3.71 | - |
| Degradation co-efficient (**) | C _{dh} | 0.99 | - | | | | |
| T _j = + 2 °C | P _{dh} | 3.9 | kW | T _j = + 2 °C | COP _d | 4.02 | - |
| Degradation co-efficient (**) | C _{dh} | 0.98 | - | | | | |
| T _j = + 7 °C | P _{dh} | 3.9 | kW | T _j = + 7 °C | COP _d | 5.34 | - |
| Degradation co-efficient (**) | C _{dh} | 0.97 | - | | | | |
| T _j = +12 °C | P _{dh} | 4.5 | kW | T _j = +12 °C | COP _d | 7.50 | - |
| Degradation co-efficient (**) | C _{dh} | 0.97 | - | | | | |
| T _j = bivalent temperature | P _{dh} | 8.4 | kW | T _j = bivalent temperature | COP _d | 2.15 | - |
| T _j = operation limit temperature | P _{dh} | 7.7 | kW | T _j = operation limit temperature | COP _d | 1.57 | - |
| T _j = - 15 °C (if TOL < - 20 °C) | P _{dh} | 8.5 | kW | T _j = - 15 °C (if TOL < - 20 °C) | COP _d | 2.20 | - |
| Bivalent temperature | T _{biv} | -16 | °C | Operation limit temperature | TOL | -28 | °C |
| | | | | Heating water operating limit temperature | WTOL | 60 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | P _{OFF} | 0.015 | kW | Rated heat output (*) | P _{sup} | 2.0 | kW |
| Thermostat-off mode | P _{TO} | 0.015 | kW | | | | |
| Standby mode | P _{SB} | 0.015 | kW | Type of energy input | Electrical | | |
| Crankcase heater mode | P _{CK} | 0.000 | kW | | | | |

| | | | | | | | |
|-------------------------------------|-----------------|-------|-------|-------------------------------|------|-------------------|--|
| Other items | | | | Rated air flow rate, outdoors | | | |
| Capacity control | variable | | | - | 2640 | m ³ /h | |
| Sound power level, indoors/outdoors | L _{WA} | 41/59 | dB(A) | | | | |
| Annual energy consumption | Q _{HE} | 6106 | kWh | | | | |

| | | | | | | | |
|-----------------------------------|-------------------|---|------|---------------------------------|-------------|---|---|
| For heat pump combination heater: | | | | | | | |
| Declared load profile | - | | | Water heating energy efficiency | η_{wh} | - | % |
| Daily electricity consumption | Q _{elec} | - | kW/h | | | | |
| Annual electricity consumption | AEC | - | kW/h | | | | |

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MITSUBISHI ELECTRIC AIR CODITIONING SYSTEM EUROPE LTD Nettlehill Road, Houston Industrial Estate, Livingston, EH54 5EQ, Scotland, U.K.

(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).

(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

| | | |
|---------------------------------------|---------------|---------------------------------|
| Model(s): | Outdoor unit: | PUD-SHWM100VAA |
| | Indoor unit: | EHSD-**** |
| Air-to-water heat pump: | | yes |
| Water-to-water heat pump: | | no |
| Brine-to-water heat pump: | | no |
| Low-temperature heat pump: | | no |
| Equipped with a supplementary heater: | | yes |
| Heat pump combination heater: | | no |
| Parameters shall be declared for | | medium-temperature application. |
| Parameters shall be declared for | | warmer climate conditions. |

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|---|------------------|-------|------|--|------------------|-------|------|
| Rated heat output (*) | Prated | 10.0 | kW | Seasonal space heating energy efficiency | η_s | 163 | % |
| Declared capacity for heating for part load at indoor <input type="checkbox"/> temperature 20 °C and outdoor temperature T _j | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j | | | |
| T _j = - 7 °C | P _{dh} | - | kW | T _j = - 7 °C | COP _d | - | - |
| Degradation co-efficient (**) | C _{dh} | - | - | | | | |
| T _j = + 2 °C | P _{dh} | 10 | kW | T _j = + 2 °C | COP _d | 2.05 | - |
| Degradation co-efficient (**) | C _{dh} | 0.99 | - | | | | |
| T _j = + 7 °C | P _{dh} | 6.4 | kW | T _j = + 7 °C | COP _d | 3.48 | - |
| Degradation co-efficient (**) | C _{dh} | 0.99 | - | | | | |
| T _j = +12 °C | P _{dh} | 4.2 | kW | T _j = +12 °C | COP _d | 5.68 | - |
| Degradation co-efficient (**) | C _{dh} | 0.98 | - | | | | |
| T _j = bivalent temperature | P _{dh} | 1.0 | kW | T _j = bivalent temperature | COP _d | 0.96 | - |
| T _j = operation limit temperature | P _{dh} | 7.7 | kW | T _j = operation limit temperature | COP _d | 1.57 | - |
| T _j = - 15 °C (if TOL < - 20 °C) | P _{dh} | - | kW | T _j = - 15 °C (if TOL < - 20 °C) | COP _d | - | - |
| Bivalent temperature | T _{biv} | -7 | °C | Operation limit temperature | TOL | -28 | °C |
| | | | | Heating water operating limit temperature | WTOL | 60 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | P _{OFF} | 0.015 | kW | Rated heat output (*) | P _{sup} | 3.0 | kW |
| Thermostat-off mode | P _{TO} | 0.015 | kW | | | | |
| Standby mode | P _{SB} | 0.015 | kW | Type of energy input | Electrical | | |
| Crankcase heater mode | P _{CK} | 0.000 | kW | | | | |

| | | | | | | | |
|-------------------------------------|-----------------|-------|-------|-------------------------------|------|-------------------|--|
| Other items | | | | Rated air flow rate, outdoors | | | |
| Capacity control | variable | | | - | 2640 | m ³ /h | |
| Sound power level, indoors/outdoors | L _{WA} | 41/59 | dB(A) | | | | |
| Annual energy consumption | Q _{HE} | 3169 | kWh | | | | |

| | | | | | | | |
|-----------------------------------|-------------------|---|------|---------------------------------|-------------|---|---|
| For heat pump combination heater: | | | | | | | |
| Declared load profile | - | | | Water heating energy efficiency | η_{wh} | - | % |
| Daily electricity consumption | Q _{elec} | - | kW/h | | | | |
| Annual electricity consumption | AEC | - | kW/h | | | | |

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(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).

(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

| | | |
|---------------------------------------|---------------|------------------------------|
| Model(s): | Outdoor unit: | PUD-SHWM100VAA |
| | Indoor unit: | EHSD-**** |
| Air-to-water heat pump: | | yes |
| Water-to-water heat pump: | | no |
| Brine-to-water heat pump: | | no |
| Low-temperature heat pump: | | no |
| Equipped with a supplementary heater: | | yes |
| Heat pump combination heater: | | no |
| Parameters shall be declared for | | low-temperature application. |
| Parameters shall be declared for | | warmer climate conditions. |

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|---|------------------|-------|------|--|------------------|-------|------|
| Rated heat output (*) | Prated | 10.0 | kW | Seasonal space heating energy efficiency | η_s | 235 | % |
| Declared capacity for heating for part load at indoor <input type="checkbox"/> temperature 20 °C and outdoor temperature T _j | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j | | | |
| T _j = - 7 °C | P _{dh} | - | kW | T _j = - 7 °C | COP _d | - | - |
| Degradation co-efficient (**) | C _{dh} | - | - | | | | |
| T _j = + 2 °C | P _{dh} | 10 | kW | T _j = + 2 °C | COP _d | 3.45 | - |
| Degradation co-efficient (**) | C _{dh} | 0.99 | - | | | | |
| T _j = + 7 °C | P _{dh} | 6.4 | kW | T _j = + 7 °C | COP _d | 5.42 | - |
| Degradation co-efficient (**) | C _{dh} | 0.98 | - | | | | |
| T _j = +12 °C | P _{dh} | 4.4 | kW | T _j = +12 °C | COP _d | 7.46 | - |
| Degradation co-efficient (**) | C _{dh} | 0.97 | - | | | | |
| T _j = bivalent temperature | P _{dh} | 1.0 | kW | T _j = bivalent temperature | COP _d | 1.00 | - |
| T _j = operation limit temperature | P _{dh} | 7.7 | kW | T _j = operation limit temperature | COP _d | 1.57 | - |
| T _j = - 15 °C (if TOL < - 20 °C) | P _{dh} | - | kW | T _j = - 15 °C (if TOL < - 20 °C) | COP _d | - | - |
| Bivalent temperature | T _{biv} | -7 | °C | Operation limit temperature | TOL | -28 | °C |
| | | | | Heating water operating limit temperature | WTOL | 60 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | P _{OFF} | 0.015 | kW | Rated heat output (*) | P _{sup} | 3.0 | kW |
| Thermostat-off mode | P _{TO} | 0.015 | kW | | | | |
| Standby mode | P _{SB} | 0.015 | kW | Type of energy input | Electrical | | |
| Crankcase heater mode | P _{CK} | 0.000 | kW | | | | |

| | | | | | | | |
|-------------------------------------|-----------------|-------|-------|-------------------------------|------|-------------------|--|
| Other items | | | | Rated air flow rate, outdoors | | | |
| Capacity control | variable | | | - | 2640 | m ³ /h | |
| Sound power level, indoors/outdoors | L _{WA} | 41/59 | dB(A) | | | | |
| Annual energy consumption | Q _{HE} | 2191 | kWh | | | | |

| | | | | | | | |
|-----------------------------------|-------------------|---|------|---------------------------------|---|---|--|
| For heat pump combination heater: | | | | Water heating energy efficiency | | | |
| Declared load profile | - | | | η_{wh} | - | % | |
| Daily electricity consumption | Q _{elec} | - | kW/h | | | | |
| Annual electricity consumption | AEC | - | kW/h | | | | |

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(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).

(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

| | | |
|---------------------------------------|---------------|---------------------------------|
| Model(s): | Outdoor unit: | PUD-SHWM100VAA |
| | Indoor unit: | ERSD-**** |
| Air-to-water heat pump: | | yes |
| Water-to-water heat pump: | | no |
| Brine-to-water heat pump: | | no |
| Low-temperature heat pump: | | no |
| Equipped with a supplementary heater: | | yes |
| Heat pump combination heater: | | no |
| Parameters shall be declared for | | medium-temperature application. |
| Parameters shall be declared for | | average climate conditions. |

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|---|-------------------|-------|-------|--|------------------|-------------------|------|
| Rated heat output (*) | Prated | 10.0 | kW | Seasonal space heating energy efficiency | η_s | 136 | % |
| Declared capacity for heating for part load at indoor <input type="checkbox"/> temperature 20 °C and outdoor temperature T _j | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j | | | |
| T _j = - 7 °C | P _{dh} | 8.9 | kW | T _j = - 7 °C | COP _d | 2.18 | - |
| Degradation co-efficient (**) | C _{dh} | 0.99 | - | | | | |
| T _j = + 2 °C | P _{dh} | 5.4 | kW | T _j = + 2 °C | COP _d | 3.29 | - |
| Degradation co-efficient (**) | C _{dh} | 0.99 | - | | | | |
| T _j = + 7 °C | P _{dh} | 5.2 | kW | T _j = + 7 °C | COP _d | 4.81 | - |
| Degradation co-efficient (**) | C _{dh} | 0.98 | - | | | | |
| T _j = +12 °C | P _{dh} | 3.6 | kW | T _j = +12 °C | COP _d | 7.06 | - |
| Degradation co-efficient (**) | C _{dh} | 0.97 | - | | | | |
| T _j = bivalent temperature | P _{dh} | 10.0 | kW | T _j = bivalent temperature | COP _d | 1.91 | - |
| T _j = operation limit temperature | P _{dh} | 7.7 | kW | T _j = operation limit temperature | COP _d | 1.57 | - |
| T _j = - 15 °C (if TOL < - 20 °C) | P _{dh} | - | kW | T _j = - 15 °C (if TOL < - 20 °C) | COP _d | - | - |
| Bivalent temperature | T _{biv} | -10 | °C | Operation limit temperature | TOL | -28 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | P _{OFF} | 0.015 | kW | Rated heat output (*) | P _{sup} | 0.0 | kW |
| Thermostat-off mode | P _{TO} | 0.015 | kW | Type of energy input Electrical | | | |
| Standby mode | P _{SB} | 0.015 | kW | | | | |
| Crankcase heater mode | P _{CK} | 0.000 | kW | | | | |
| Other items | | | | Rated air flow rate, outdoors | | | |
| Capacity control | variable | | | - | 2640 | m ³ /h | |
| Sound power level, indoors/outdoors | L _{WA} | 41/59 | dB(A) | | | | |
| Annual energy consumption | Q _{HE} | 5836 | kWh | | | | |
| For heat pump combination heater: | | | | Water heating energy efficiency | | | |
| Declared load profile | - | | | η_{wh} | - | % | |
| Daily electricity consumption | Q _{elec} | - | kW/h | | | | |
| Annual electricity consumption | AEC | - | kW/h | | | | |

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(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).
(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

| | | |
|---------------------------------------|---------------|------------------------------|
| Model(s): | Outdoor unit: | PUD-SHWM100VAA |
| | Indoor unit: | ERSD-**** |
| Air-to-water heat pump: | | yes |
| Water-to-water heat pump: | | no |
| Brine-to-water heat pump: | | no |
| Low-temperature heat pump: | | no |
| Equipped with a supplementary heater: | | yes |
| Heat pump combination heater: | | no |
| Parameters shall be declared for | | low-temperature application. |
| Parameters shall be declared for | | average climate conditions. |

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|---|------------------|-------|------|--|------------------|-------|------|
| Rated heat output (*) | Prated | 10.0 | kW | Seasonal space heating energy efficiency | η_s | 180 | % |
| Declared capacity for heating for part load at indoor <input type="checkbox"/> temperature 20 °C and outdoor temperature T _j | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j | | | |
| T _j = - 7 °C | P _{dh} | 8.9 | kW | T _j = - 7 °C | COP _d | 3.16 | - |
| Degradation co-efficient (**) | C _{dh} | 0.99 | - | | | | |
| T _j = + 2 °C | P _{dh} | 5.7 | kW | T _j = + 2 °C | COP _d | 4.52 | - |
| Degradation co-efficient (**) | C _{dh} | 0.98 | - | | | | |
| T _j = + 7 °C | P _{dh} | 5.4 | kW | T _j = + 7 °C | COP _d | 5.63 | - |
| Degradation co-efficient (**) | C _{dh} | 0.98 | - | | | | |
| T _j = +12 °C | P _{dh} | 4.5 | kW | T _j = +12 °C | COP _d | 7.89 | - |
| Degradation co-efficient (**) | C _{dh} | 0.97 | - | | | | |
| T _j = bivalent temperature | P _{dh} | 10.0 | kW | T _j = bivalent temperature | COP _d | 2.92 | - |
| T _j = operation limit temperature | P _{dh} | 7.7 | kW | T _j = operation limit temperature | COP _d | 1.57 | - |
| T _j = - 15 °C (if TOL < - 20 °C) | P _{dh} | - | kW | T _j = - 15 °C (if TOL < - 20 °C) | COP _d | - | - |
| Bivalent temperature | T _{biv} | -10 | °C | Operation limit temperature | TOL | -28 | °C |
| | | | | Heating water operating limit temperature | WTOL | 60 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | P _{OFF} | 0.015 | kW | Rated heat output (*) | P _{sup} | 0.0 | kW |
| Thermostat-off mode | P _{TO} | 0.015 | kW | | | | |
| Standby mode | P _{SB} | 0.015 | kW | Type of energy input | Electrical | | |
| Crankcase heater mode | P _{CK} | 0.000 | kW | | | | |

| | | | | | | | |
|-------------------------------------|-----------------|-------|-------|-------------------------------|------|-------------------|--|
| Other items | | | | Rated air flow rate, outdoors | | | |
| Capacity control | variable | | | - | 2640 | m ³ /h | |
| Sound power level, indoors/outdoors | L _{WA} | 41/59 | dB(A) | | | | |
| Annual energy consumption | Q _{HE} | 4430 | kWh | | | | |

| | | | | | | | |
|-----------------------------------|-------------------|---|------|---------------------------------|-------------|---|---|
| For heat pump combination heater: | | | | | | | |
| Declared load profile | - | | | Water heating energy efficiency | η_{wh} | - | % |
| Daily electricity consumption | Q _{elec} | - | kW/h | | | | |
| Annual electricity consumption | AEC | - | kW/h | | | | |

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(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).

(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

| | | |
|---------------------------------------|---------------|---------------------------------|
| Model(s): | Outdoor unit: | PUD-SHWM100VAA |
| | Indoor unit: | ERSD-**** |
| Air-to-water heat pump: | | yes |
| Water-to-water heat pump: | | no |
| Brine-to-water heat pump: | | no |
| Low-temperature heat pump: | | no |
| Equipped with a supplementary heater: | | yes |
| Heat pump combination heater: | | no |
| Parameters shall be declared for | | medium-temperature application. |
| Parameters shall be declared for | | colder climate conditions. |

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|---|------------------|-------|------|--|------------------|-------|------|
| Rated heat output (*) | Prated | 10.0 | kW | Seasonal space heating energy efficiency | η_s | 115 | % |
| Declared capacity for heating for part load at indoor <input type="checkbox"/> temperature 20 °C and outdoor temperature T _j | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature T _j | | | |
| T _j = - 7 °C | P _{dh} | 6.1 | kW | T _j = - 7 °C | COP _d | 2.60 | - |
| Degradation co-efficient (**) | C _{dh} | 0.99 | - | | | | |
| T _j = + 2 °C | P _{dh} | 3.7 | kW | T _j = + 2 °C | COP _d | 3.19 | - |
| Degradation co-efficient (**) | C _{dh} | 0.98 | - | | | | |
| T _j = + 7 °C | P _{dh} | 3.8 | kW | T _j = + 7 °C | COP _d | 4.58 | - |
| Degradation co-efficient (**) | C _{dh} | 0.98 | - | | | | |
| T _j = +12 °C | P _{dh} | 4.4 | kW | T _j = +12 °C | COP _d | 6.88 | - |
| Degradation co-efficient (**) | C _{dh} | 0.97 | - | | | | |
| T _j = bivalent temperature | P _{dh} | 8.4 | kW | T _j = bivalent temperature | COP _d | 1.56 | - |
| T _j = operation limit temperature | P _{dh} | 7.7 | kW | T _j = operation limit temperature | COP _d | 1.57 | - |
| T _j = - 15 °C (if TOL < - 20 °C) | P _{dh} | 8.5 | kW | T _j = - 15 °C (if TOL < - 20 °C) | COP _d | 1.56 | - |
| Bivalent temperature | T _{biv} | -16 | °C | Operation limit temperature | TOL | -28 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | P _{OFF} | 0.015 | kW | Rated heat output (*) | P _{sup} | 2.0 | kW |
| Thermostat-off mode | P _{TO} | 0.015 | kW | Type of energy input Electrical | | | |
| Standby mode | P _{SB} | 0.015 | kW | | | | |
| Crankcase heater mode | P _{CK} | 0.000 | kW | | | | |

| | | | | | | | |
|-------------------------------------|-----------------|-------|-------|-------------------------------|------|-------------------|--|
| Other items | | | | Rated air flow rate, outdoors | | | |
| Capacity control | variable | | | - | 2640 | m ³ /h | |
| Sound power level, indoors/outdoors | L _{WA} | 41/59 | dB(A) | | | | |
| Annual energy consumption | Q _{HE} | 7924 | kWh | | | | |

| | | | | | | | |
|-----------------------------------|-------------------|---|------|---------------------------------|-------------|---|---|
| For heat pump combination heater: | | | | | | | |
| Declared load profile | - | | | Water heating energy efficiency | η_{wh} | - | % |
| Daily electricity consumption | Q _{elec} | - | kW/h | | | | |
| Annual electricity consumption | AEC | - | kW/h | | | | |

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(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).

(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

| | | |
|---------------------------------------|---------------|------------------------------|
| Model(s): | Outdoor unit: | PUD-SHWM100VAA |
| | Indoor unit: | ERSD-**** |
| Air-to-water heat pump: | | yes |
| Water-to-water heat pump: | | no |
| Brine-to-water heat pump: | | no |
| Low-temperature heat pump: | | no |
| Equipped with a supplementary heater: | | yes |
| Heat pump combination heater: | | no |
| Parameters shall be declared for | | low-temperature application. |
| Parameters shall be declared for | | colder climate conditions. |

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|---|------------------|-------|------|--|------------------|-------|------|
| Rated heat output (*) | Prated | 10.0 | kW | Seasonal space heating energy efficiency | η_s | 149 | % |
| Declared capacity for heating for part load at indoor <input type="checkbox"/> temperature 20 °C and outdoor temperature Tj | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj | | | |
| Tj = - 7 °C | Pdh | 6.2 | kW | Tj = - 7 °C | COPd | 3.71 | - |
| Degradation co-efficient (**) | Cdh | 0.99 | - | | | | |
| Tj = + 2 °C | Pdh | 3.9 | kW | Tj = + 2 °C | COPd | 4.02 | - |
| Degradation co-efficient (**) | Cdh | 0.98 | - | | | | |
| Tj = + 7 °C | Pdh | 3.9 | kW | Tj = + 7 °C | COPd | 5.34 | - |
| Degradation co-efficient (**) | Cdh | 0.97 | - | | | | |
| Tj = +12 °C | Pdh | 4.5 | kW | Tj = +12 °C | COPd | 7.50 | - |
| Degradation co-efficient (**) | Cdh | 0.97 | - | | | | |
| Tj = bivalent temperature | Pdh | 8.4 | kW | Tj = bivalent temperature | COPd | 2.15 | - |
| Tj = operation limit temperature | Pdh | 7.7 | kW | Tj = operation limit temperature | COPd | 1.57 | - |
| Tj = - 15 °C (if TOL < - 20 °C) | Pdh | 8.5 | kW | Tj = - 15 °C (if TOL < - 20 °C) | COPd | 2.20 | - |
| Bivalent temperature | Tbiv | -16 | °C | Operation limit temperature | TOL | -28 | °C |
| | | | | Heating water operating limit temperature | WTOL | 60 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | P _{OFF} | 0.015 | kW | Rated heat output (*) | P _{sup} | 2.0 | kW |
| Thermostat-off mode | P _{TO} | 0.015 | kW | | | | |
| Standby mode | P _{SB} | 0.015 | kW | Type of energy input | Electrical | | |
| Crankcase heater mode | P _{CK} | 0.000 | kW | | | | |

| Other items | | | |
|-------------------------------------|-----------------|----------|-------------------|
| Capacity control | | variable | |
| Sound power level, indoors/outdoors | L _{WA} | 41/59 | dB(A) |
| Annual energy consumption | Q _{HE} | 6106 | kWh |
| Rated air flow rate, outdoors | | 2640 | m ³ /h |

| For heat pump combination heater: | | | |
|-----------------------------------|-------------------|---|-----|
| Declared load profile | | - | |
| Daily electricity consumption | Q _{elec} | - | kWh |
| Annual electricity consumption | AEC | - | kWh |
| Water heating energy efficiency | η_{wh} | - | % |

Contact details

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(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).

(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

| | | |
|---------------------------------------|---------------|---------------------------------|
| Model(s): | Outdoor unit: | PUD-SHWM100VAA |
| | Indoor unit: | ERSD-**** |
| Air-to-water heat pump: | | yes |
| Water-to-water heat pump: | | no |
| Brine-to-water heat pump: | | no |
| Low-temperature heat pump: | | no |
| Equipped with a supplementary heater: | | yes |
| Heat pump combination heater: | | no |
| Parameters shall be declared for | | medium-temperature application. |
| Parameters shall be declared for | | warmer climate conditions. |

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|---|------------------|-------|------|--|------------------|-------|------|
| Rated heat output (*) | Prated | 10.0 | kW | Seasonal space heating energy efficiency | η_s | 163 | % |
| Declared capacity for heating for part load at indoor <input type="checkbox"/> temperature 20 °C and outdoor temperature Tj | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj | | | |
| Tj = - 7 °C | Pdh | - | kW | Tj = - 7 °C | COPd | - | - |
| Degradation co-efficient (**) | Cdh | - | - | | | | |
| Tj = + 2 °C | Pdh | 10 | kW | Tj = + 2 °C | COPd | 2.05 | - |
| Degradation co-efficient (**) | Cdh | 0.99 | - | | | | |
| Tj = + 7 °C | Pdh | 6.4 | kW | Tj = + 7 °C | COPd | 3.48 | - |
| Degradation co-efficient (**) | Cdh | 0.99 | - | | | | |
| Tj = +12 °C | Pdh | 4.2 | kW | Tj = +12 °C | COPd | 5.68 | - |
| Degradation co-efficient (**) | Cdh | 0.98 | - | | | | |
| Tj = bivalent temperature | Pdh | 1.0 | kW | Tj = bivalent temperature | COPd | 0.96 | - |
| Tj = operation limit temperature | Pdh | 7.7 | kW | Tj = operation limit temperature | COPd | 1.57 | - |
| Tj = - 15 °C (if TOL < - 20 °C) | Pdh | - | kW | Tj = - 15 °C (if TOL < - 20 °C) | COPd | - | - |
| Bivalent temperature | Tbiv | -7 | °C | Operation limit temperature | TOL | -28 | °C |
| | | | | Heating water operating limit temperature | WTOL | 60 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | P _{OFF} | 0.015 | kW | Rated heat output (*) | P _{sup} | 3.0 | kW |
| Thermostat-off mode | P _{TO} | 0.015 | kW | | | | |
| Standby mode | P _{SB} | 0.015 | kW | Type of energy input | Electrical | | |
| Crankcase heater mode | P _{CK} | 0.000 | kW | | | | |

| Other items | | | |
|-------------------------------------|-----------------|----------|-------------------|
| Capacity control | | variable | |
| Sound power level, indoors/outdoors | L _{WA} | 41/59 | dB(A) |
| Annual energy consumption | Q _{HE} | 3169 | kWh |
| Rated air flow rate, outdoors | | 2640 | m ³ /h |

| For heat pump combination heater: | | | |
|-----------------------------------|-------------------|---|-----|
| Declared load profile | | - | |
| Daily electricity consumption | Q _{elec} | - | kWh |
| Annual electricity consumption | AEC | - | kWh |
| Water heating energy efficiency | η_{wh} | - | % |

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(*) For heat pump space heaters and heat pump combination heaters, the rated heat output Prated is equal to the design load for heating Pdesignh, and the rated heat output of a supplementary heater Psup is equal to the supplementary capacity for heating sup(Tj).

(**) If Cdh is not determined by measurement then the default degradation coefficient is Cdh = 0,9.

| | | |
|---------------------------------------|---------------|------------------------------|
| Model(s): | Outdoor unit: | PUD-SHWM100VAA |
| | Indoor unit: | ERSD-**** |
| Air-to-water heat pump: | | yes |
| Water-to-water heat pump: | | no |
| Brine-to-water heat pump: | | no |
| Low-temperature heat pump: | | no |
| Equipped with a supplementary heater: | | yes |
| Heat pump combination heater: | | no |
| Parameters shall be declared for | | low-temperature application. |
| Parameters shall be declared for | | warmer climate conditions. |

| Item | Symbol | Value | Unit | Item | Symbol | Value | Unit |
|---|------------------|-------|------|--|------------------|-------|------|
| Rated heat output (*) | Prated | 10.0 | kW | Seasonal space heating energy efficiency | η_s | 235 | % |
| Declared capacity for heating for part load at indoor <input type="checkbox"/> temperature 20 °C and outdoor temperature Tj | | | | Declared coefficient of performance or primary energy ratio for part load at indoor temperature 20 °C and outdoor temperature Tj | | | |
| Tj = - 7 °C | Pdh | - | kW | Tj = - 7 °C | COPd | - | - |
| Degradation co-efficient (**) | Cdh | - | - | | | | |
| Tj = + 2 °C | Pdh | 10 | kW | Tj = + 2 °C | COPd | 3.45 | - |
| Degradation co-efficient (**) | Cdh | 0.99 | - | | | | |
| Tj = + 7 °C | Pdh | 6.4 | kW | Tj = + 7 °C | COPd | 5.42 | - |
| Degradation co-efficient (**) | Cdh | 0.98 | - | | | | |
| Tj = +12 °C | Pdh | 4.4 | kW | Tj = +12 °C | COPd | 7.46 | - |
| Degradation co-efficient (**) | Cdh | 0.97 | - | | | | |
| Tj = bivalent temperature | Pdh | 1.0 | kW | Tj = bivalent temperature | COPd | 1.00 | - |
| Tj = operation limit temperature | Pdh | 7.7 | kW | Tj = operation limit temperature | COPd | 1.57 | - |
| Tj = - 15 °C (if TOL < - 20 °C) | Pdh | - | kW | Tj = - 15 °C (if TOL < - 20 °C) | COPd | - | - |
| Bivalent temperature | Tbiv | -7 | °C | Operation limit temperature | TOL | -28 | °C |
| | | | | Heating water operating limit temperature | WTOL | 60 | °C |
| Power consumption in modes other than active mode | | | | Supplementary heater | | | |
| Off mode | P _{OFF} | 0.015 | kW | Rated heat output (*) | P _{sup} | 3.0 | kW |
| Thermostat-off mode | P _{TO} | 0.015 | kW | | | | |
| Standby mode | P _{SB} | 0.015 | kW | Type of energy input | Electrical | | |
| Crankcase heater mode | P _{CK} | 0.000 | kW | | | | |

| | | | | | | | |
|-------------------------------------|-----------------|-------|-------|-------------------------------|------|-------------------|--|
| Other items | | | | Rated air flow rate, outdoors | | | |
| Capacity control | variable | | | - | 2640 | m ³ /h | |
| Sound power level, indoors/outdoors | L _{WA} | 41/59 | dB(A) | | | | |
| Annual energy consumption | Q _{HE} | 2191 | kWh | | | | |

| | | | | | | | |
|-----------------------------------|-------------------|---|------|---------------------------------|-------------|---|---|
| For heat pump combination heater: | | | | | | | |
| Declared load profile | - | | | Water heating energy efficiency | η_{wh} | - | % |
| Daily electricity consumption | Q _{elec} | - | kW/h | | | | |
| Annual electricity consumption | AEC | - | kW/h | | | | |

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