

| Summary of | 04. Yutaki S & S Combi 4.0HP (mono) | Reg. No. | 041-K002-04 |
|----------------------------|--|----------|-------------|
| Certificate Holder | | | |
| Name | Johnson Controls-Hitachi AirConditioning Spa | ain | |
| Address | Ronda Shimizu, 1. Pol. Ind. Can Torrella | Zip | 08233 |
| City | Vacarisses, Barcelona | Country | Spain |
| Certification Body | BRE Energy & Communications Division | | |
| Name of testing laboratory | CEIS | | |
| Subtype title | 04. Yutaki S & S Combi 4.0HP (mono) | | |
| Heat Pump Type | Outdoor Air/Water | | |
| Refrigerant | R410a | | |
| Mass Of Refrigerant | 3.3 kg | | |



Model: RAS-4WHVNPE RWM-4.0NE - Heating Only

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

Heating

| EN 14511-4 | |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

| EN 14511-2 | | |
|------------------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| Heat output | 11.00 kW | 11.00 kW |
| El input | 2.20 kW | 3.67 kW |
| СОР | 5.00 | 3.00 |
| Indoor water flow rate | 1.89 m³/h | 1.18 m³/h |



| EN 12102-1 | | |
|---------------------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 39 dB(A) | 39 dB(A) |
| Sound power level outdoor | 64 dB(A) | 64 dB(A) |

| EN 14825 | | |
|---------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| η_{s} | 187 % | 136 % |
| Prated | 11.00 kW | 10.00 kW |
| SCOP | 4.75 | 3.48 |
| Tbiv | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| Pdh Tj = -7°C | 9.60 kW | 8.60 kW |
| COP Tj = -7°C | 2.74 | 1.80 |
| Pdh Tj = +2°C | 5.84 kW | 5.23 kW |
| COP Tj = +2°C | 5.20 | 3.60 |
| Pdh Tj = +7°C | 3.76 kW | 3.52 kW |
| COP Tj = +7°C | 5.80 | 4.80 |
| Pdh Tj = 12°C | 3.70 kW | 3.60 kW |
| COP Tj = 12°C | 6.40 | 5.80 |
| Pdh Tj = Tbiv | 9.60 kW | 8.60 kW |



| | <u> </u> | |
|--|-------------|-------------|
| COP Tj = Tbiv | 2.74 | 1.80 |
| Pdh Tj = TOL | 10.50 kW | 7.40 kW |
| COP Tj = TOL | 2.65 | 1.70 |
| Cdh | 0.90 | 0.90 |
| WTOL | 55 °C | 55 °C |
| Poff | 13 W | 13 W |
| РТО | o w | o w |
| PSB | 13 W | 13 W |
| PCK | o w | o w |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.50 kW | 2.30 kW |
| Annual energy consumption Qhe | 4714 kWh | 5815 kWh |



Model: RAS-4WHVNPE RWD-4.0NWE-200S - Heating Only

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

Heating

| EN 14511-4 | |
|--|--------|
| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed |
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |

| EN 14511-2 | | |
|------------------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| Heat output | 11.00 kW | 11.00 kW |
| El input | 2.20 kW | 3.67 kW |
| СОР | 5.00 | 3.00 |
| Indoor water flow rate | 1.89 m³/h | 1.18 m³/h |



| EN 12102-1 | | |
|---------------------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 39 dB(A) | 39 dB(A) |
| Sound power level outdoor | 64 dB(A) | 64 dB(A) |

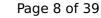
| EN 14825 | | |
|---------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| η_{s} | 187 % | 136 % |
| Prated | 11.00 kW | 10.00 kW |
| SCOP | 4.75 | 3.48 |
| Tbiv | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| Pdh Tj = -7°C | 9.60 kW | 8.60 kW |
| COP Tj = -7°C | 2.74 | 1.80 |
| Pdh Tj = +2°C | 5.84 kW | 5.23 kW |
| COP Tj = +2°C | 5.20 | 3.60 |
| Pdh Tj = +7°C | 3.76 kW | 3.52 kW |
| COP Tj = +7°C | 5.80 | 4.80 |
| Pdh Tj = 12°C | 3.70 kW | 3.60 kW |
| COP Tj = 12°C | 6.40 | 5.80 |
| Pdh Tj = Tbiv | 9.60 kW | 8.60 kW |





| COP Tj = Tbiv | 2.74 | 1.80 |
|--|-------------|-------------|
| Pdh Tj = TOL | 10.50 kW | 7.40 kW |
| COP Tj = TOL | 2.65 | 1.70 |
| Cdh | 0.90 | 0.90 |
| WTOL | 55 °C | 55 °C |
| Poff | 13 W | 13 W |
| РТО | o w | o w |
| PSB | 13 W | 13 W |
| PCK | o w | o w |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.50 kW | 2.30 kW |
| Annual energy consumption Qhe | 4714 kWh | 5815 kWh |

Domestic Hot Water (DHW)





| EN 16147 | | |
|---------------------------------|------------|--|
| Declared load profile | L | |
| Efficiency ηDHW | 130 % | |
| СОР | 3.25 | |
| Heating up time | 1:23 h:min | |
| Standby power input | 42.0 W | |
| Reference hot water temperature | 54.0 °C | |
| Mixed water at 40°C | 263 I | |



Model: RAS-4WHVNPE RWD-4.0NWE-260S - Heating Only

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

Heating

| EN 14511-4 | | |
|--|--------|--|
| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed | |
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed | |
| Shutting off the heat transfer medium flow | passed | |
| Complete power supply failure | passed | |
| Defrost test | passed | |

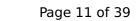
| EN 14511-2 | | |
|------------------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| Heat output | 11.00 kW | 11.00 kW |
| El input | 2.20 kW | 3.67 kW |
| СОР | 5.00 | 3.00 |
| Indoor water flow rate | 1.89 m³/h | 1.18 m³/h |



 $$\operatorname{\textit{Page}}\ 10$$ of 39 This information was generated by the HP KEYMARK database on 17 Dec 2020

| EN 12102-1 | | |
|---------------------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 39 dB(A) | 39 dB(A) |
| Sound power level outdoor | 64 dB(A) | 64 dB(A) |

| EN 14825 | | |
|---------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| η_{s} | 187 % | 136 % |
| Prated | 11.00 kW | 10.00 kW |
| SCOP | 4.75 | 3.48 |
| Tbiv | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| Pdh Tj = -7°C | 9.60 kW | 8.60 kW |
| COP Tj = -7°C | 2.74 | 1.80 |
| Pdh Tj = +2°C | 5.84 kW | 5.23 kW |
| COP Tj = +2°C | 5.20 | 3.60 |
| Pdh Tj = +7°C | 3.76 kW | 3.52 kW |
| COP Tj = +7°C | 5.80 | 4.80 |
| Pdh Tj = 12°C | 3.70 kW | 3.60 kW |
| COP Tj = 12°C | 6.40 | 5.80 |
| Pdh Tj = Tbiv | 9.60 kW | 8.60 kW |





| This information was generated by the HP KEYMARK database on 17 Dec 202 | | |
|---|-------------|-------------|
| COP Tj = Tbiv | 2.74 | 1.80 |
| Pdh Tj = TOL | 10.50 kW | 7.40 kW |
| COP Tj = TOL | 2.65 | 1.70 |
| Cdh | 0.90 | 0.90 |
| WTOL | 55 °C | 55 °C |
| Poff | 13 W | 13 W |
| РТО | 0 W | 0 W |
| PSB | 13 W | 13 W |
| PCK | o w | 0 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.50 kW | 2.30 kW |
| | | |

4714 kWh

5815 kWh

Domestic Hot Water (DHW)

Annual energy consumption Qhe





 $$\operatorname{\textit{Page}}\ 12$ of 39$$ This information was generated by the HP KEYMARK database on 17 Dec 2020

| EN 16147 | | |
|---------------------------------|------------|--|
| Declared load profile | XL | |
| Efficiency ηDHW | 134 % | |
| СОР | 3.35 | |
| Heating up time | 1:44 h:min | |
| Standby power input | 44.0 W | |
| Reference hot water temperature | 54.0 °C | |
| Mixed water at 40°C | 350 I | |

Model: RAS-4WHVNPE RWD-4.0NWE-200S-K - UK- Heating Only

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

Heating

| EN 14511-4 | | |
|--|--------|--|
| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed | |
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed | |
| Shutting off the heat transfer medium flow | passed | |
| Complete power supply failure | passed | |
| Defrost test | passed | |

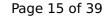
| EN 14511-2 | | |
|------------------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| Heat output | 11.00 kW | 11.00 kW |
| El input | 2.20 kW | 3.67 kW |
| СОР | 5.00 | 3.00 |
| Indoor water flow rate | 1.89 m³/h | 1.18 m³/h |



 $$\operatorname{\textit{Page}}\ 14$$ of 39 This information was generated by the HP KEYMARK database on 17 Dec 2020

| EN 12102-1 | | |
|---------------------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 39 dB(A) | 39 dB(A) |
| Sound power level outdoor | 64 dB(A) | 64 dB(A) |

| EN 14825 | | |
|---------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| η_{s} | 187 % | 136 % |
| Prated | 11.00 kW | 10.00 kW |
| SCOP | 4.75 | 3.48 |
| Tbiv | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| Pdh Tj = -7°C | 9.60 kW | 8.60 kW |
| COP Tj = -7°C | 2.74 | 1.80 |
| Pdh Tj = +2°C | 5.84 kW | 5.23 kW |
| COP Tj = +2°C | 5.20 | 3.60 |
| Pdh Tj = +7°C | 3.76 kW | 3.52 kW |
| COP Tj = +7°C | 5.80 | 4.80 |
| Pdh Tj = 12°C | 3.70 kW | 3.60 kW |
| COP Tj = 12°C | 6.40 | 5.80 |
| Pdh Tj = Tbiv | 9.60 kW | 8.60 kW |





| COP Tj = Tbiv | 2.74 | 1.80 |
|--|-------------|-------------|
| Pdh Tj = TOL | 10.50 kW | 7.40 kW |
| COP Tj = TOL | 2.65 | 1.70 |
| Cdh | 0.90 | 0.90 |
| WTOL | 55 °C | 55 °C |
| Poff | 13 W | 13 W |
| РТО | o w | 0 W |
| PSB | 13 W | 13 W |
| PCK | 0 W | 0 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.50 kW | 2.30 kW |
| Annual energy consumption Qhe | 4714 kWh | 5815 kWh |
| | | |

Domestic Hot Water (DHW)





 $$\operatorname{\textit{Page}}\ 16$$ of 39 This information was generated by the HP KEYMARK database on 17 Dec 2020

| EN 16147 | | |
|---------------------------------|------------|--|
| Declared load profile | L | |
| Efficiency ηDHW | 130 % | |
| СОР | 3.25 | |
| Heating up time | 1:23 h:min | |
| Standby power input | 42.0 W | |
| Reference hot water temperature | 54.0 °C | |
| Mixed water at 40°C | 263 I | |

Model: RAS-4WHVNPE RWD-4.0NWE-260S-K - UK- Heating Only

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

Heating

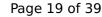
| EN 14511-4 | | |
|--|--------|--|
| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed | |
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed | |
| Shutting off the heat transfer medium flow | passed | |
| Complete power supply failure | passed | |
| Defrost test | passed | |

| EN 14511-2 | | | |
|------------------------|-----------------|--------------------|--|
| | Low temperature | Medium temperature | |
| Heat output | 11.00 kW | 11.00 kW | |
| El input | 2.20 kW | 3.67 kW | |
| СОР | 5.00 | 3.00 | |
| Indoor water flow rate | 1.89 m³/h | 1.18 m³/h | |



| EN 12102-1 | | | |
|---------------------------|-----------------|--------------------|--|
| | Low temperature | Medium temperature | |
| Sound power level indoor | 39 dB(A) | 39 dB(A) | |
| Sound power level outdoor | 64 dB(A) | 64 dB(A) | |

| EN 14825 | | |
|---------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| η_{s} | 187 % | 136 % |
| Prated | 11.00 kW | 10.00 kW |
| SCOP | 4.75 | 3.48 |
| Tbiv | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| Pdh Tj = -7°C | 9.60 kW | 8.60 kW |
| COP Tj = -7°C | 2.74 | 1.80 |
| Pdh Tj = +2°C | 5.84 kW | 5.23 kW |
| COP Tj = +2°C | 5.20 | 3.60 |
| Pdh Tj = +7°C | 3.76 kW | 3.52 kW |
| COP Tj = +7°C | 5.80 | 4.80 |
| Pdh Tj = 12°C | 3.70 kW | 3.60 kW |
| COP Tj = 12°C | 6.40 | 5.80 |
| Pdh Tj = Tbiv | 9.60 kW | 8.60 kW |





| | | | | _ |
|----------------------|----------------|----------------|---------------|------------|
| This information was | generated by t | the HP KEYMARK | database on 1 | 7 Dec 2020 |

| COP Tj = Tbiv | 2.74 | 1.80 |
|--|-------------|-------------|
| Pdh Tj = TOL | 10.50 kW | 7.40 kW |
| COP Tj = TOL | 2.65 | 1.70 |
| Cdh | 0.90 | 0.90 |
| WTOL | 55 °C | 55 °C |
| Poff | 13 W | 13 W |
| РТО | o w | o w |
| PSB | 13 W | 13 W |
| PCK | o w | o w |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.50 kW | 2.30 kW |
| Annual energy consumption Qhe | 4714 kWh | 5815 kWh |

Domestic Hot Water (DHW)





 $$\operatorname{\textit{Page}}\xspace$ 20 of 39 This information was generated by the HP KEYMARK database on 17 Dec 2020

| EN 16147 | | |
|---------------------------------|------------|--|
| Declared load profile | XL | |
| Efficiency ηDHW | 134 % | |
| СОР | 3.35 | |
| Heating up time | 1:44 h:min | |
| Standby power input | 44.0 W | |
| Reference hot water temperature | 54.0 °C | |
| Mixed water at 40°C | 350 I | |



Model: RAS-4WHVNPE RWD-4.0NWSE-260S - Solar - Heating Only

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

Heating

| EN 14511-4 | | |
|--|--------|--|
| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed | |
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed | |
| Shutting off the heat transfer medium flow | passed | |
| Complete power supply failure | passed | |
| Defrost test | passed | |

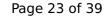
| EN 14511-2 | | |
|------------------------------------|-----------|--------------------|
| Low temperature Medium temperature | | Medium temperature |
| Heat output | 11.00 kW | 11.00 kW |
| El input | 2.20 kW | 3.67 kW |
| СОР | 5.00 | 3.00 |
| Indoor water flow rate | 1.89 m³/h | 1.18 m³/h |



 $$\operatorname{\textit{Page}}\xspace$ 22 of 39 This information was generated by the HP KEYMARK database on 17 Dec 2020

| EN 12102-1 | | |
|---------------------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 39 dB(A) | 39 dB(A) |
| Sound power level outdoor | 64 dB(A) | 64 dB(A) |

| EN 14825 | | |
|---------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| η_{s} | 187 % | 136 % |
| Prated | 11.00 kW | 10.00 kW |
| SCOP | 4.75 | 3.48 |
| Tbiv | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| Pdh Tj = -7°C | 9.60 kW | 8.60 kW |
| COP Tj = -7°C | 2.74 | 1.80 |
| Pdh Tj = +2°C | 5.84 kW | 5.23 kW |
| COP Tj = +2°C | 5.20 | 3.60 |
| Pdh Tj = +7°C | 3.76 kW | 3.52 kW |
| COP Tj = +7°C | 5.80 | 4.80 |
| Pdh Tj = 12°C | 3.70 kW | 3.60 kW |
| COP Tj = 12°C | 6.40 | 5.80 |
| Pdh Tj = Tbiv | 9.60 kW | 8.60 kW |





| This information was ger | nerated by the HP KEYM | ARK database on 17 Dec 2020 |
|--------------------------|------------------------|-----------------------------|
| | | |

| COP Tj = Tbiv | 2.74 | 1.80 |
|--|-------------|-------------|
| Pdh Tj = TOL | 10.50 kW | 7.40 kW |
| COP Tj = TOL | 2.65 | 1.70 |
| Cdh | 0.90 | 0.90 |
| WTOL | 55 °C | 55 °C |
| Poff | 13 W | 13 W |
| РТО | o w | o w |
| PSB | 13 W | 13 W |
| PCK | o w | o w |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.50 kW | 2.30 kW |
| Annual energy consumption Qhe | 4714 kWh | 5815 kWh |

Domestic Hot Water (DHW)





 $$\operatorname{\textit{Page}}\xspace$ 24 of 39 This information was generated by the HP KEYMARK database on 17 Dec 2020

| EN 16147 | | |
|---------------------------------|------------|--|
| Declared load profile | XL | |
| Efficiency ηDHW | 134 % | |
| СОР | 3.35 | |
| Heating up time | 1:44 h:min | |
| Standby power input | 44.0 W | |
| Reference hot water temperature | 54.0 °C | |
| Mixed water at 40°C | 350 I | |



Model: RAS-4WHVNPE RWM-4.0NE - with cooling kit

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

Heating

| EN 14511-4 | | |
|--|--------|--|
| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed | |
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed | |
| Shutting off the heat transfer medium flow | passed | |
| Complete power supply failure | passed | |
| Defrost test | passed | |

| EN 14511-2 | | |
|------------------------------------|-----------|--------------------|
| Low temperature Medium temperature | | Medium temperature |
| Heat output | 11.00 kW | 11.00 kW |
| El input | 2.20 kW | 3.67 kW |
| СОР | 5.00 | 3.00 |
| Indoor water flow rate | 1.89 m³/h | 1.18 m³/h |



 $$\operatorname{\textit{Page}}\xspace$ 26 of 39 This information was generated by the HP KEYMARK database on 17 Dec 2020

| EN 12102-1 | | |
|---------------------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 39 dB(A) | 39 dB(A) |
| Sound power level outdoor | 64 dB(A) | 64 dB(A) |

| EN 14825 | | |
|---------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| η_{s} | 189 % | 137 % |
| Prated | 11.00 kW | 10.00 kW |
| SCOP | 4.80 | 3.50 |
| Tbiv | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| Pdh Tj = -7°C | 9.60 kW | 8.60 kW |
| COP Tj = -7°C | 2.74 | 1.80 |
| Pdh Tj = +2°C | 5.84 kW | 5.23 kW |
| COP Tj = +2°C | 5.20 | 3.60 |
| Pdh Tj = +7°C | 3.76 kW | 3.52 kW |
| COP Tj = +7°C | 5.80 | 4.80 |
| Pdh Tj = 12°C | 3.70 kW | 3.60 kW |
| COP Tj = 12°C | 6.40 | 5.80 |
| Pdh Tj = Tbiv | 9.60 kW | 8.60 kW |



$$\operatorname{\textit{Page}}\xspace$ 27 of 39 This information was generated by the HP KEYMARK database on 17 Dec 2020

| | <u> </u> | |
|--|-------------|-------------|
| COP Tj = Tbiv | 2.74 | 1.80 |
| Pdh Tj = TOL | 10.50 kW | 7.40 kW |
| COP Tj = TOL | 2.65 | 1.70 |
| Cdh | 0.90 | 0.90 |
| WTOL | 55 °C | 55 °C |
| Poff | 13 W | 13 W |
| РТО | o w | o w |
| PSB | 13 W | 13 W |
| PCK | o w | o w |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.50 kW | 2.30 kW |
| Annual energy consumption Qhe | 4666 kWh | 5767 kWh |



Model: RAS-4WHVNPE RWD-4.0NWE-200S - with cooling kit

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

Heating

| EN 14511-4 | | |
|--|--------|--|
| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed | |
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed | |
| Shutting off the heat transfer medium flow | passed | |
| Complete power supply failure | passed | |
| Defrost test | passed | |

| EN 14511-2 | | |
|------------------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| Heat output | 11.00 kW | 11.00 kW |
| El input | 2.20 kW | 3.67 kW |
| СОР | 5.00 | 3.00 |
| Indoor water flow rate | 1.89 m³/h | 1.18 m³/h |



 $$\operatorname{\textit{Page}}\xspace$ 29 of 39 This information was generated by the HP KEYMARK database on 17 Dec 2020

| EN 12102-1 | | |
|---------------------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 39 dB(A) | 39 dB(A) |
| Sound power level outdoor | 64 dB(A) | 64 dB(A) |

| EN 14825 | | |
|---------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| η_{s} | 189 % | 137 % |
| Prated | 11.00 kW | 10.00 kW |
| SCOP | 4.80 | 3.50 |
| Tbiv | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| Pdh Tj = -7°C | 9.60 kW | 8.60 kW |
| COP Tj = -7°C | 2.74 | 1.80 |
| Pdh Tj = +2°C | 5.84 kW | 5.23 kW |
| COP Tj = +2°C | 5.20 | 3.60 |
| Pdh Tj = +7°C | 3.76 kW | 3.52 kW |
| COP Tj = +7°C | 5.80 | 4.80 |
| Pdh Tj = 12°C | 3.70 kW | 3.60 kW |
| COP Tj = 12°C | 6.40 | 5.80 |
| Pdh Tj = Tbiv | 9.60 kW | 8.60 kW |





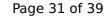
| This information was generated by the HP KEYMARK database on 17 Dec 202 | | |
|---|-------------|-------------|
| COP Tj = Tbiv | 2.74 | 1.80 |
| Pdh Tj = TOL | 10.50 kW | 7.40 kW |
| COP Tj = TOL | 2.65 | 1.70 |
| Cdh | 0.90 | 0.90 |
| WTOL | 55 °C | 55 °C |
| Poff | 13 W | 13 W |
| PTO | 0 W | 0 W |
| PSB | 13 W | 13 W |
| PCK | 0 W | 0 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.50 kW | 2.30 kW |
| | | |

4666 kWh

5767 kWh

Domestic Hot Water (DHW)

Annual energy consumption Qhe





| EN 16147 | |
|---------------------------------|------------|
| Declared load profile | L |
| Efficiency ηDHW | 130 % |
| СОР | 3.25 |
| Heating up time | 1:23 h:min |
| Standby power input | 42.0 W |
| Reference hot water temperature | 54.0 °C |
| Mixed water at 40°C | 263 I |



Model: RAS-4WHVNPE RWD-4.0NWE-260S - with cooling kit

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

Heating

| EN 14511-4 | | |
|--|--------|--|
| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed | |
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed | |
| Shutting off the heat transfer medium flow | passed | |
| Complete power supply failure | passed | |
| Defrost test | passed | |

| EN 14511-2 | | |
|------------------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| Heat output | 11.00 kW | 11.00 kW |
| El input | 2.20 kW | 3.67 kW |
| СОР | 5.00 | 3.00 |
| Indoor water flow rate | 1.89 m³/h | 1.18 m³/h |



| EN 12102-1 | | |
|---------------------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 39 dB(A) | 39 dB(A) |
| Sound power level outdoor | 64 dB(A) | 64 dB(A) |

| EN 14825 | | |
|---------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| η_{s} | 189 % | 137 % |
| Prated | 11.00 kW | 10.00 kW |
| SCOP | 4.80 | 3.50 |
| Tbiv | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| Pdh Tj = -7°C | 9.60 kW | 8.60 kW |
| COP Tj = -7°C | 2.74 | 1.80 |
| Pdh Tj = +2°C | 5.84 kW | 5.23 kW |
| COP Tj = +2°C | 5.20 | 3.60 |
| Pdh Tj = +7°C | 3.76 kW | 3.52 kW |
| COP Tj = +7°C | 5.80 | 4.80 |
| Pdh Tj = 12°C | 3.70 kW | 3.60 kW |
| COP Tj = 12°C | 6.40 | 5.80 |
| Pdh Tj = Tbiv | 9.60 kW | 8.60 kW |





| This information was generated by the Fit KETHANK database on 17 Bee 202 | | |
|--|-------------|-------------|
| COP Tj = Tbiv | 2.74 | 1.80 |
| Pdh Tj = TOL | 10.50 kW | 7.40 kW |
| COP Tj = TOL | 2.65 | 1.70 |
| Cdh | 0.90 | 0.90 |
| WTOL | 55 °C | 55 °C |
| Poff | 13 W | 13 W |
| РТО | o w | o w |
| PSB | 13 W | 13 W |
| PCK | o w | o w |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.50 kW | 2.30 kW |
| Annual energy consumption Qhe | 4666 kWh | 5767 kWh |

Domestic Hot Water (DHW)





 $$\operatorname{\textit{Page}}\ 35$$ of 39 This information was generated by the HP KEYMARK database on 17 Dec 2020

| EN 16147 | | |
|---------------------------------|------------|--|
| Declared load profile | XL | |
| Efficiency ηDHW | 134 % | |
| СОР | 3.35 | |
| Heating up time | 1:44 h:min | |
| Standby power input | 44.0 W | |
| Reference hot water temperature | 54.0 °C | |
| Mixed water at 40°C | 350 I | |



Model: RAS-4WHVNPE RWD-4.0NWSE-260S - Solar - with cooling kit

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

Heating

| EN 14511-4 | | | |
|--|--------|--|--|
| Operating range outdoor exchanger/indoor exchanger lower limit/lower limit | passed | | |
| Operating range outdoor exchanger/indoor exchanger upper limit/upper limit | passed | | |
| Shutting off the heat transfer medium flow | passed | | |
| Complete power supply failure | passed | | |
| Defrost test | passed | | |

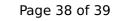
| EN 14511-2 | | | |
|------------------------|-----------------|--------------------|--|
| | Low temperature | Medium temperature | |
| Heat output | 11.00 kW | 11.00 kW | |
| El input | 2.20 kW | 3.67 kW | |
| СОР | 5.00 | 3.00 | |
| Indoor water flow rate | 1.89 m³/h | 1.18 m³/h | |



 $$\operatorname{\textit{Page}}\xspace$ 37 of 39 This information was generated by the HP KEYMARK database on 17 Dec 2020

| EN 12102-1 | | |
|---------------------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| Sound power level indoor | 39 dB(A) | 39 dB(A) |
| Sound power level outdoor | 64 dB(A) | 64 dB(A) |

| EN 14825 | | |
|---------------|-----------------|--------------------|
| | Low temperature | Medium temperature |
| η_{s} | 189 % | 137 % |
| Prated | 11.00 kW | 10.00 kW |
| SCOP | 4.80 | 3.50 |
| Tbiv | -7 °C | -7 °C |
| TOL | -10 °C | -10 °C |
| Pdh Tj = -7°C | 9.60 kW | 8.60 kW |
| COP Tj = -7°C | 2.74 | 1.80 |
| Pdh Tj = +2°C | 5.84 kW | 5.23 kW |
| COP Tj = +2°C | 5.20 | 3.60 |
| Pdh Tj = +7°C | 3.76 kW | 3.52 kW |
| COP Tj = +7°C | 5.80 | 4.80 |
| Pdh Tj = 12°C | 3.70 kW | 3.60 kW |
| COP Tj = 12°C | 6.40 | 5.80 |
| Pdh Tj = Tbiv | 9.60 kW | 8.60 kW |





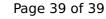
| This information was | generated by the HP KEYM | 1ARK database on 17 Dec 2020 |
|--|--------------------------|------------------------------|
| COP Tj = Tbiv | 2.74 | 1.80 |
| Pdh Tj = TOL | 10.50 kW | 7.40 kW |
| COP Tj = TOL | 2.65 | 1.70 |
| Cdh | 0.90 | 0.90 |
| WTOL | 55 °C | 55 °C |
| Poff | 13 W | 13 W |
| РТО | 0 W | 0 W |
| PSB | 13 W | 13 W |
| PCK | 0 W | 0 W |
| Supplementary Heater: Type of energy input | electricity | electricity |
| Supplementary Heater: PSUP | 0.50 kW | 2.30 kW |
| | | <u> </u> |

4666 kWh

5767 kWh

Domestic Hot Water (DHW)

Annual energy consumption Qhe





| EN 16147 | | |
|---------------------------------|------------|--|
| Declared load profile | XL | |
| Efficiency ηDHW | 134 % | |
| СОР | 3.35 | |
| Heating up time | 1:44 h:min | |
| Standby power input | 44.0 W | |
| Reference hot water temperature | 54.0 °C | |
| Mixed water at 40°C | 350 I | |