This information was generated by the HP KEYMARK database on 5 Mar 2021

| Summary of | LWD 50A/RX | Reg. No. | 041-K001-45 |
|---|---|---|---|
| Certificate Holder | | | |
| Name | ait-deutschland GmbH | | |
| Address | Industriestr. 3 | Zip | 95359 |
| City | Kasendorf | Country | Germany |
| Certification Body | BRE Global Limited | | |
| Subtype title | LWD 50A/RX | | |
| Heat Pump Type | Air extérieur/Eau | | |
| Refrigerant | R290 | | |
| Mass Of Refrigerant | 2.1 kg | | |
| Certification Date | 24.11.2020 | | |
| Testing basis | HP Keymark Scheme Rules Rev 08 | | |



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# Model: LWD 50A/RX-HMD

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

## Heating

| EN 14511-2 | | |
|---|---|---|
| | **Low temperature** | **Medium temperature** |
| Puissance thermique | 6.80 kW | 6.16 kW |
| Puissance électrique absorbée | 1.49 kW | 1.78 kW |
| COP | 4.56 | 3.46 |

| EN 14511-4 | |
|---|---|
| | |
| Coupure des débits des fluides caloporteurs | passed |
| Coupure complète de l'alimentation électrique | passed |
| Dégivrage | passed |
| Starting and operating test | passed |

## Average Climate

| EN 12102-1 | | |
|---|---|---|
| | **Low temperature** | **Medium temperature** |
| Puissance acoustique extérieure | 57 dB(A) | 57 dB(A) |



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## EN 14825

| | Low temperature | Medium temperature |
|---|---|---|
| $\eta_s$ | 152 % | 125 % |
| Prated | 5.78 kW | 5.41 kW |
| SCOP | 3.87 | 3.21 |
| Tbiv | -5 °C | -5 °C |
| TOL | -10 °C | -10 °C |
| Pdh Tj = -7°C | 4.45 kW | 4.11 kW |
| COP Tj = -7°C | 3.13 | 2.28 |
| Cdh | 1.00 | 1.00 |
| Pdh Tj = +2°C | 5.41 kW | 5.26 kW |
| COP Tj = +2°C | 3.90 | 3.19 |
| Cdh | 0.99 | 0.99 |
| Pdh Tj = +7°C | 6.89 kW | 6.73 kW |
| COP Tj = +7°C | 4.88 | 4.29 |
| Cdh | 0.99 | 0.99 |
| Pdh Tj = 12°C | 7.61 kW | 7.58 kW |
| COP Tj = 12°C | 5.36 | 5.19 |
| Cdh | 0.99 | 0.99 |
| Pdh Tj = Tbiv | 4.67 kW | 4.37 kW |
| COP Tj = Tbiv | 3.33 | 2.46 |



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| | | |
|---|---|---|
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 4.12 kW | 3.78 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.85 | 2.06 |
| WTOL | 62 °C | 62 °C |
| Poff | 15 W | 15 W |
| PTO | 15 W | 15 W |
| PSB | 15 W | 15 W |
| PCK | 0 W | 0 W |
| Chauffage d'appoint: type d'énergie utilisée | electricity | electricity |
| Chauffage d'appoint: $P_{SUP}$ | 1.66 kW | 1.63 kW |
| Consommation annuelle d'électricité $Q_{HE}$ | 3084 kWh | 3485 kWh |

## Warmer Climate

| **EN 12102-1** | | |
|---|---|---|
| | **Low temperature** | **Medium temperature** |
| Puissance acoustique extérieure | 57 dB(A) | 57 dB(A) |

| **EN 14825** | | |
|---|---|---|
| | **Low temperature** | **Medium temperature** |
| $\eta_s$ | 185 % | 151 % |
| Prated | 6.95 kW | 6.51 kW |
| SCOP | 4.69 | 3.85 |



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| | | |
|---|---|---|
| Tbiv | 4 °C | 4 °C |
| TOL | 2 °C | 2 °C |
| Pdh Tj = +2°C | 5.36 kW | 5.07 kW |
| COP Tj = +2°C | 3.67 | 2.58 |
| Cdh | 1.00 | 1.00 |
| Pdh Tj = +7°C | 6.83 kW | 6.43 kW |
| COP Tj = +7°C | 4.73 | 3.53 |
| Cdh | 0.99 | 0.99 |
| Pdh Tj = 12°C | 7.58 kW | 7.47 kW |
| COP Tj = 12°C | 5.48 | 4.96 |
| Cdh | 0.99 | 0.99 |
| Pdh Tj = Tbiv | 5.96 kW | 5.58 kW |
| COP Tj = Tbiv | 4.16 | 2.92 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.36 kW | 5.07 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.67 | 2.58 |
| WTOL | 62 °C | 62 °C |
| Poff | 15 W | 15 W |
| PTO | 15 W | 15 W |
| PSB | 15 W | 15 W |
| PCK | 0 W | 0 W |
| Chauffage d'appoint: type d'énergie utilisée | electricity | electricity |



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| | | |
|---|---|---|
| Chauffage d'appoint: $P_{SUP}$ | 1.59 kW | 1.44 kW |
| Consommation annuelle d'électricité $Q_{HE}$ | 1978 kWh | 2259 kWh |

## Colder Climate

| **EN 12102-1** | | |
|---|---|---|
| | **Low temperature** | **Medium temperature** |
| Puissance acoustique extérieure | 57 dB(A) | 57 dB(A) |

| **EN 14825** | | |
|---|---|---|
| | **Low temperature** | **Medium temperature** |
| $\eta_s$ | 135 % | 114 % |
| Prated | 5.38 kW | 5.04 kW |
| SCOP | 3.45 | 2.91 |
| Tbiv | -20 °C | -20 °C |
| TOL | -12 °C | -12 °C |
| Pdh Tj = -7°C | 4.50 kW | 4.26 kW |
| COP Tj = -7°C | 3.31 | 2.60 |
| Cdh | 0.99 | 0.99 |
| Pdh Tj = +2°C | 5.45 kW | 5.33 kW |
| COP Tj = +2°C | 4.04 | 3.47 |
| Cdh | 0.99 | 0.99 |



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| | | |
|---|---|---|
| Pdh Tj = +7°C | 6.93 kW | 6.85 kW |
| COP Tj = +7°C | 4.95 | 4.61 |
| Cdh | 0.99 | 0.99 |
| Pdh Tj = 12°C | 7.60 kW | 7.63 kW |
| COP Tj = 12°C | 5.06 | 5.16 |
| Cdh | 0.99 | 0.99 |
| Pdh Tj = Tbiv | 3.96 kW | 3.71 kW |
| COP Tj = Tbiv | 2.86 | 2.21 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 3.09 kW | 2.90 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.14 | 1.70 |
| WTOL | 62 °C | 62 °C |
| Poff | 15 W | 15 W |
| PTO | 15 W | 15 W |
| PSB | 15 W | 15 W |
| PCK | 0 W | 0 W |
| Chauffage d'appoint: type d'énergie utilisée | electricity | electricity |
| Chauffage d'appoint: $P_{SUP}$ | 5.38 kW | 5.04 kW |
| Consommation annuelle d'électricité $Q_{HE}$ | 3849 kWh | 4264 kWh |
| Pdh Tj = -15°C (if TOL<-20°C) | 3.63 | 3.40 |
| COP Tj = -15°C (if TOL<-20°C) | 2.57 | 2.21 |
| Cdh | 1.00 | 1.00 |



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