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Login

| Summary of | LWD 70A/RX | Reg. No. | 041-K001-46 |
|---|---|---|---|
| Certificate Holder | | | |
| Name | ait-deutschland GmbH | | |
| Address | Industriestr. 3 | Zip | 95359 |
| City | Kasendorf | Country | Germany |
| Certification Body | BRE Global Limited | | |
| Subtype title | LWD 70A/RX | | |
| Heat Pump Type | Outdoor Air/Water | | |
| Refrigerant | R290 | | |
| Mass of Refrigerant | 2.2 kg | | |
| Certification Date | 24.11.2020 | | |
| Testing basis | HP Keymark Scheme Rules Rev 08 | | |

# Model: LWD 70A/RX-HMD

| Configure model | |
|---|---|
| Model name | LWD 70A/RX-HMD |
| Application | Heating (medium temp) |
| Units | Outdoor |
| Climate Zone | n/a |
| Reversibility | No |
| Cooling mode application (optional) | n/a |

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

## Heating

| EN 14511-2 | | |
|---|---|---|
| | **Low temperature** | **Medium temperature** |
| Heat output | 8.74 kW | 8.49 kW |
| El input | 2.02 kW | 2.54 kW |
| COP | 4.32 | 3.34 |

| 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 | 57 dB(A) | 57 dB(A) |

| EN 14825 | | |
|---|---|---|
| | **Low temperature** | **Medium temperature** |
| $\eta_s$ | 152 % | 125 % |
| Prated | 8.61 kW | 7.92 kW |
| SCOP | 3.87 | 3.20 |
| Tbiv | -4 °C | -4 °C |
| TOL | -10 °C | -10 °C |
| Pdh Tj = -7°C | 6.18 kW | 5.58 kW |
| COP Tj = -7°C | 3.18 | 2.28 |
| Cdh Tj = -7 °C | 1.00 | 1.00 |
| Pdh Tj = +2°C | 7.46 kW | 7.12 kW |
| COP Tj = +2°C | 3.94 | 3.18 |
| Cdh Tj = +2 °C | 0.99 | 0.99 |
| Pdh Tj = +7°C | 8.69 kW | 8.75 kW |
| COP Tj = +7°C | 4.66 | 4.18 |
| Cdh Tj = +7 °C | 0.99 | 0.99 |
| Pdh Tj = 12°C | 10.34 kW | 10.32 kW |

| | | |
|---|---|---|
| COP Tj = 12°C | 5.58 | 5.43 |
| Cdh Tj = +12 °C | 0.99 | 0.99 |
| Pdh Tj = Tbiv | 6.62 kW | 6.09 kW |
| COP Tj = Tbiv | 3.47 | 2.56 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.60 kW | 5.05 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.90 | 2.04 |
| 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 |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 3.01 kW | 2.87 kW |
| Annual energy consumption Qhe | 4595 kWh | 5117 kWh |

# Model: LWD 70A/RX-HTD

| Configure model | |
|---|---|
| Model name | LWD 70A/RX-HTD |
| Application | Heating (medium temp) |
| Units | Outdoor |
| Climate Zone | Colder Climate + Warmer Climate |
| Reversibility | Yes |
| Cooling mode application (optional) | n/a |

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

## Heating

| EN 14511-2 | | |
|---|---|---|
| | **Low temperature** | **Medium temperature** |
| Heat output | 8.74 kW | 8.49 kW |
| El input | 2.02 kW | 2.54 kW |
| COP | 4.32 | 3.34 |

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

## Warmer Climate

| EN 12102-1 | | |
|---|---|---|
| | **Low temperature** | **Medium temperature** |
| Sound power level outdoor | 57 dB(A) | 57 dB(A) |

| EN 14825 | | |
|---|---|---|
| | **Low temperature** | **Medium temperature** |
| $\eta_s$ | 185 % | 156 % |
| Prated | 9.25 kW | 8.92 kW |
| SCOP | 4.71 | 3.98 |
| Tbiv | 4 °C | 4 °C |
| TOL | 2 °C | 2 °C |
| Pdh Tj = +2°C | 7.35 kW | 6.68 kW |
| COP Tj = +2°C | 3.68 | 2.52 |
| Cdh Tj = +2 °C | 1.00 | 1.00 |
| Pdh Tj = +7°C | 8.71 kW | 8.85 kW |
| COP Tj = +7°C | 4.50 | 3.59 |
| Cdh Tj = +7 °C | 0.99 | 0.99 |
| Pdh Tj = 12°C | 10.31 kW | 10.22 kW |
| COP Tj = 12°C | 5.58 | 5.10 |
| Cdh Tj = +12 °C | 0.99 | 0.99 |
| Pdh Tj = Tbiv | 7.93 kW | 7.64 kW |

| | | |
|---|---|---|
| COP Tj = Tbiv | 4.06 | 2.95 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 7.35 kW | 6.68 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 3.68 | 2.95 |
| 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 |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 1.90 kW | 2.24 kW |
| Annual energy consumption Qhe | 2626 kWh | 2998 kWh |

## Colder Climate

| **EN 12102-1** | | |
|---|---|---|
| | **Low temperature** | **Medium temperature** |
| Sound power level outdoor | 57 dB(A) | 57 dB(A) |

| **EN 14825** | | |
|---|---|---|
| | **Low temperature** | **Medium temperature** |
| $\eta_s$ | 136 % | 114 % |
| Prated | 7.21 kW | 6.70 kW |

| | | |
|---|---|---|
| SCOP | 3.47 | 2.92 |
| Tbiv | -12 °C | -12 °C |
| TOL | -20 °C | -20 °C |
| Pdh Tj = -7°C | 6.28 kW | 5.85 kW |
| COP Tj = -7°C | 3.36 | 2.62 |
| Cdh Tj = -7 °C | 0.99 | 0.99 |
| Pdh Tj = +2°C | 7.52 kW | 7.28 kW |
| COP Tj = +2°C | 4.06 | 3.48 |
| Cdh Tj = +2 °C | 0.99 | 0.99 |
| Pdh Tj = +7°C | 8.68 kW | 8.71 kW |
| COP Tj = +7°C | 4.69 | 4.41 |
| Cdh Tj = +7 °C | 0.99 | 0.99 |
| Pdh Tj = 12°C | 10.33 kW | 10.37 kW |
| COP Tj = 12°C | 5.28 | 5.43 |
| Cdh Tj = +12 °C | 0.99 | 0.99 |
| Pdh Tj = Tbiv | 5.31 kW | 4.94 kW |
| COP Tj = Tbiv | 2.93 | 2.20 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 4.73 kW | 3.63 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.63 | 1.60 |
| 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 |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 7.21 kW | 6.70 kW |
| Annual energy consumption Qhe | 5124 kWh | 5657 kWh |
| Pdh Tj = -15°C (if TOL<-20°C) | 4.73 | 4.43 |
| COP Tj = -15°C (if TOL<-20°C) | 2.63 | 1.96 |
| Cdh Tj = -15 °C | 1.00 | 1.00 |

## Average Climate

| **EN 12102-1** | | |
|---|---|---|
| | **Low temperature** | **Medium temperature** |
| Sound power level outdoor | 57 dB(A) | 57 dB(A) |

| **EN 14825** | | |
|---|---|---|
| | **Low temperature** | **Medium temperature** |
| $\eta_s$ | 152 % | 125 % |
| Prated | 8.61 kW | 7.92 kW |
| SCOP | 3.87 | 3.20 |
| Tbiv | -4 °C | -4 °C |

| | | |
|---|---|---|
| TOL | -10 °C | -10 °C |
| Pdh Tj = -7°C | 6.18 kW | 5.58 kW |
| COP Tj = -7°C | 3.18 | 2.28 |
| Cdh Tj = -7 °C | 1.00 | 1.00 |
| Pdh Tj = +2°C | 7.46 kW | 7.12 kW |
| COP Tj = +2°C | 3.94 | 3.18 |
| Cdh Tj = +2 °C | 0.99 | 0.99 |
| Pdh Tj = +7°C | 8.69 kW | 8.75 kW |
| COP Tj = +7°C | 4.66 | 4.18 |
| Cdh Tj = +7 °C | 0.99 | 0.99 |
| Pdh Tj = 12°C | 10.34 kW | 10.32 kW |
| COP Tj = 12°C | 5.58 | 5.43 |
| Cdh Tj = +12 °C | 0.99 | 0.99 |
| Pdh Tj = Tbiv | 6.62 kW | 6.09 kW |
| COP Tj = Tbiv | 3.47 | 2.56 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 5.60 kW | 5.05 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.90 | 2.04 |
| 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 |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 3.01 kW | 2.87 kW |
| Annual energy consumption Qhe | 4595 kWh | 5117 kWh |