## Subtype Air to Water Heat Pump-R32-15

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|---|---|
| Certificate Holder | Guangdong Luckingstar New Energy CO., LTD. |
| Address | No.255 Hexiang East Rd, C area, Heshan Industrial Zone, Heshan City |
| ZIP | |
| City | Guangdong |
| Country | CN |
| Certification Body | BRE Global Limited |
| Subtype title | Air to Water Heat Pump-R32-15 |
| Registration number | 041-K094-03 |
| Heat Pump Type | Outdoor Air/Water |
| Refrigerant | R32 |
| Mass of Refrigerant | 1.7 kg |
| Certification Date | 02.08.2024 |
| Testing basis | HP KEYMARK certification scheme rules rev. no.14 |
| Testing laboratory | TÜV SÜD Certification and Testing Co., Ltd. Guangzhou Branch, CN |

## Model LWH-F15HVLZPEN5

| | |
|---|---|
| Model name | LWH-F15HVLZPEN5 |
| Application | Heating (medium temp) |
| Units | Outdoor |
| Climate zone (for heating) | n/a |
| Reversibility | Yes |
| Cooling mode application (optional) | n/a |
| Any additional heat sources | n/a |

## General data

| | |
|---|---|
| Power supply | 1x230V 50Hz |
| Off-peak product | n/a |

## Outdoor Air/Water

### EN 14511-4 | Heating

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

### EN 14511-2 | Heating

| | Low temperature | Medium temperature |
|---|---|---|
| Heat output | 15.08 kW | 14.46 kW |
| El input | 3.28 kW | 4.87 kW |
| COP | 4.59 | 2.97 |

### EN 12102-1 | Average Climate

| | Low temperature | Medium temperature |
|---|---|---|
| Sound power level outdoor | 69 dB(A) | 70 dB(A) |

### EN 14825 | Average Climate

| | Low temperature | Medium temperature |
|---|---|---|
| ηs | 179 % | 129 % |
| Prated | 14.51 kW | 14.36 kW |
| SCOP | 4.54 | 3.30 |
| Tbiv | -7 °C | -7 °C |
| TOL | -25 °C | -25 °C |
| Pdh Tj = -7°C | 12.84 kW | 12.70 kW |
| COP Tj = -7°C | 3.11 | 2.27 |
| Cdh Tj = -7 °C | 0.900 | 0.900 |
| Pdh Tj = +2°C | 7.84 kW | 7.91 kW |
| COP Tj = +2°C | 4.44 | 3.34 |
| Cdh Tj = +2 °C | 0.900 | 0.900 |
| Pdh Tj = +7°C | 7.32 kW | 7.16 kW |

| | | |
|---|---|---|
| COP Tj = +7°C | 6.03 | 4.10 |
| Cdh Tj = +7 °C | 0.900 | 0.900 |
| Pdh Tj = 12°C | 7.63 kW | 7.93 kW |
| COP Tj = 12°C | 7.58 | 5.47 |
| Cdh Tj = +12 °C | 0.900 | 0.900 |
| Pdh Tj = Tbiv | 12.84 kW | 12.70 kW |
| COP Tj = Tbiv | 3.11 | 2.27 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 12.87 kW | 12.74 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.82 | 1.86 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900 | 0.900 |
| WTOL | 60 °C | 60 °C |
| Poff | 12 W | 12 W |
| PTO | 14 W | 14 W |
| PSB | 12 W | 12 W |
| PCK | 40 W | 40 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 1.65 kW | 1.62 kW |
| Annual energy consumption Qhe | 6602 kWh | 8977 kWh |

| Model LWH-F15HVZPEN5 | |
|---|---|
| Model name | LWH-F15HVZPEN5 |
| Application | Heating (medium temp) |
| Units | Outdoor |
| Climate zone (for heating) | n/a |
| Reversibility | Yes |
| Cooling mode application (optional) | n/a |
| Any additional heat sources | n/a |

| General data | |
|---|---|
| Power supply | 3x400V 50Hz |
| Off-peak product | n/a |

| Outdoor Air/Water | |
|---|---|
| EN 14511-4 \| Heating | |
| Shutting off the heat transfer medium flow | passed |
| Complete power supply failure | passed |
| Defrost test | passed |
| Starting and operating test | passed |

| EN 14511-2 \| Heating | | |
|---|---|---|
| | Low temperature | Medium temperature |
| Heat output | 15.15 kW | 14.50 kW |
| El input | 3.31 kW | 4.86 kW |
| COP | 4.58 | 2.98 |

| EN 12102-1 \| Average Climate | | |
|---|---|---|
| | Low temperature | Medium temperature |
| Sound power level outdoor | 70 dB(A) | 69 dB(A) |

| EN 14825 \| Average Climate | | |
|---|---|---|
| | Low temperature | Medium temperature |
| ηs | 179 % | 130 % |
| Prated | 14.52 kW | 14.42 kW |
| SCOP | 4.55 | 3.32 |
| Tbiv | -7 °C | -7 °C |
| TOL | -25 °C | -25 °C |
| Pdh Tj = -7°C | 12.85 kW | 12.76 kW |
| COP Tj = -7°C | 3.11 | 2.29 |
| Cdh Tj = -7 °C | 0.900 | 0.900 |
| Pdh Tj = +2°C | 7.86 kW | 7.96 kW |
| COP Tj = +2°C | 4.45 | 3.35 |
| Cdh Tj = +2 °C | 0.900 | 0.900 |
| Pdh Tj = +7°C | 7.38 kW | 7.20 kW |

| | | |
|---|---|---|
| COP Tj = +7°C | 6.04 | 4.11 |
| Cdh Tj = +7 °C | 0.900 | 0.900 |
| Pdh Tj = 12°C | 7.68 kW | 7.98 kW |
| COP Tj = 12°C | 7.59 | 5.48 |
| Cdh Tj = +12 °C | 0.900 | 0.900 |
| Pdh Tj = Tbiv | 12.85 kW | 12.76 kW |
| COP Tj = Tbiv | 3.11 | 2.29 |
| Pdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 12.93 kW | 12.79 kW |
| COP Tj = TOL or COP Tj = Tdesignh if TOL < Tdesignh | 2.83 | 1.87 |
| Cdh Tj = TOL or Pdh Tj = Tdesignh if TOL < Tdesignh | 0.900 | 0.900 |
| WTOL | 60 °C | 60 °C |
| Poff | 12 W | 12 W |
| PTO | 14 W | 14 W |
| PSB | 12 W | 12 W |
| PCK | 40 W | 40 W |
| Supplementary Heater: Type of energy input | Electricity | Electricity |
| Supplementary Heater: PSUP | 1.59 kW | 1.63 kW |
| Annual energy consumption Qhe | 6596 kWh | 8986 kWh |