This information was generated by the HP KEYMARK database on 17 Dec 2020

| Summary of | ESTIA HWS-455 | Reg. No. | 011-1W0341 |
|---|---|---|---|
| Certificate Holder | | | |
| Name | TOSHIBA AIR CONDITIONING | | |
| Address | Porsham Close, Belliver Industrial Estate | Zip | PL6 7DB |
| City | Plymouth | Country | United Kingdom |
| Certification Body | DIN CERTCO Gesellschaft für Konformitätsbewertung mbH | | |
| Name of testing laboratory | Heat Pump Test Center WPZ | | |
| Subtype title | ESTIA HWS-455 | | |
| Heat Pump Type | Outdoor Air/Water | | |
| Refrigerant | R410a | | |
| Mass Of Refrigerant | 1.15 kg | | |
| Certification Date | 26.11.2019 | | |

# Model: HWS-455H-E/HWS-455XWHM3-E

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

## Heating

| EN 14511-2 | | |
|---|---|---|
| | **Low temperature** | **Medium temperature** |
| Heat output | 4.50 kW | 5.58 kW |
| El input | 0.92 kW | 1.97 kW |
| COP | 4.90 | 2.83 |
| Indoor water flow rate | 0.77 m³/h | 0.60 m³/h |

| 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 indoor | 41 dB(A) | 41 dB(A) |
| Sound power level outdoor | 65 dB(A) | 65 dB(A) |

| EN 14825 | | |
|---|---|---|
| | **Low temperature** | **Medium temperature** |
| $\eta_s$ | 167 % | 125 % |
| Prated | 5.00 kW | 5.00 kW |
| SCOP | 4.28 | 3.22 |
| Tbiv | -7 °C | -7 °C |
| TOL | -7 °C | -7 °C |
| Pdh Tj = -7°C | 4.30 kW | 4.20 kW |
| COP Tj = -7°C | 3.12 | 2.16 |
| Pdh Tj = +2°C | 2.70 kW | 3.10 kW |
| COP Tj = +2°C | 4.68 | 3.36 |
| Pdh Tj = +7°C | 1.50 kW | 1.50 kW |
| COP Tj = +7°C | 5.42 | 4.31 |
| Pdh Tj = 12°C | 1.60 kW | 1.50 kW |
| COP Tj = 12°C | 7.57 | 5.91 |
| Pdh Tj = Tbiv | 4.30 kW | 4.20 kW |

| | | |
|---|---|---|
| COP Tj = Tbiv | 3.12 | 2.16 |
| Pdh Tj = TOL | 4.30 kW | 4.20 kW |
| COP Tj = TOL | 3.12 | 2.16 |
| Rated airflow rate | 2570 m³/h | 2570 m³/h |
| WTOL | 55 °C | 55 °C |
| Poff | 17 W | 17 W |
| PTO | 80 W | 80 W |
| PSB | 17 W | 17 W |
| PCK | 14 W | 14 W |
| Supplementary Heater: Type of energy input | electric | electric |
| Supplementary Heater: PSUP | 5.00 kW | 5.00 kW |
| Annual energy consumption Qhe | 2369 kWh | 3032 kWh |