Table 7.2 Saturation humidity vs. actual air temperature

or

Actual humidity vs. dew-point temperature

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **T** | **es** | **qs** | **T** | **es** | **qs** |
| *or* | | | *or* | | |
| **Td** | **e** | **q** | **Td** | **e** | **q** |
| **(°C)** | **(Pa)** | **(g/kg)** | **(°C)** | **(Pa)** | **(g/kg)** |
| -40 | 18 | 0.11 | 0 | 611 | 3.76 |
| -39 | 20 | 0.12 | 1 | 657 | 4.04 |
| -38 | 23 | 0.14 | 2 | 706 | 4.35 |
| -37 | 25 | 0.15 | 3 | 758 | 4.67 |
| -36 | 28 | 0.17 | 4 | 813 | 5.01 |
| -35 | 31 | 0.19 | 5 | 872 | 5.37 |
| -34 | 34 | 0.21 | 6 | 935 | 5.76 |
| -33 | 38 | 0.23 | 7 | 1002 | 6.18 |
| -32 | 41 | 0.25 | 8 | 1073 | 6.61 |
| -31 | 46 | 0.28 | 9 | 1148 | 7.08 |
| -30 | 50 | 0.31 | 10 | 1228 | 7.57 |
| -29 | 55 | 0.34 | 11 | 1313 | 8.10 |
| -28 | 61 | 0.37 | 12 | 1402 | 8.65 |
| -27 | 67 | 0.41 | 13 | 1498 | 9.25 |
| -26 | 73 | 0.45 | 14 | 1598 | 9.87 |
| -25 | 80 | 0.49 | 15 | 1705 | 10.54 |
| -24 | 88 | 0.54 | 16 | 1818 | 11.24 |
| -23 | 96 | 0.59 | 17 | 1938 | 11.99 |
| -22 | 105 | 0.64 | 18 | 2064 | 12.77 |
| -21 | 114 | 0.70 | 19 | 2197 | 13.60 |
| -20 | 125 | 0.77 | 20 | 2338 | 14.48 |
| -19 | 136 | 0.84 | 21 | 2487 | 15.41 |
| -18 | 148 | 0.91 | 22 | 2644 | 16.40 |
| -17 | 161 | 0.99 | 23 | 2809 | 17.43 |
| -16 | 175 | 1.08 | 24 | 2984 | 18.53 |
| -15 | 190 | 1.17 | 25 | 3167 | 19.68 |
| -14 | 207 | 1.27 | 26 | 3361 | 20.90 |
| -13 | 224 | 1.38 | 27 | 3565 | 22.18 |
| -12 | 243 | 1.49 | 28 | 3779 | 23.54 |
| -11 | 264 | 1.62 | 29 | 4005 | 24.96 |
| -10 | 286 | 1.76 | 30 | 4242 | 26.47 |
| -9 | 309 | 1.90 | 31 | 4492 | 28.05 |
| -8 | 334 | 2.05 | 32 | 4754 | 29.72 |
| -7 | 361 | 2.22 | 33 | 5029 | 31.47 |
| -6 | 390 | 2.40 | 34 | 5318 | 33.31 |
| -5 | 421 | 2.59 | 35 | 5622 | 35.26 |
| -4 | 454 | 2.79 | 36 | 5940 | 37.30 |
| -3 | 490 | 3.01 | 37 | 6274 | 39.45 |
| -2 | 527 | 3.24 | 38 | 6624 | 41.70 |
| -1 | 568 | 3.50 | 39 | 6990 | 44.07 |
| 0 | 611 | 3.76 | 40 | 7374 | 46.56 |