Example:

RH % = 39.61 %

$T_{sat} = T_{amb}$ = 20.00 °C = 293.15K

Using Eq. 1065.645-1,

p_{H2Osat} = 2.3371 kPa

$p_{H2Oscaled}$ = (39.61 %·2.3371) = 0.925717 kPa = 925.717 Pa

$$T_{dew} = \frac{2.0798233 \cdot 10^{2} - 2.0156028 \cdot 10^{1} \cdot \ln(925.717) + 4.6778925 \cdot 10^{-1} \cdot \ln(925.717)^{2} - 9.2288067 \cdot 10^{-6} \cdot \ln(925.717)^{3}}{1 - 1.3319669 \cdot 10^{-1} \cdot \ln(925.717) + 5.6577518 \cdot 10^{-3} \cdot \ln(925.717)^{2} - 7.5172865 \cdot 10^{-5} \cdot \ln(925.717)^{3}}$$

T_{dew} = 279.00 K = 5.85 °C