$$K^2_{77} = \begin{bmatrix} \frac{-9\,U}{t} & -4 - \frac{U^2}{t^2} & -\left(\frac{\sqrt{2}\,U^2}{t^2}\right) & \frac{2\,\sqrt{2}\,U}{t} \\ -4 - \frac{U^2}{t^2} & \frac{-7\,U}{t} & \frac{-3\,\sqrt{2}\,U}{t} & 0 \\ -\left(\frac{\sqrt{2}\,U^2}{t^2}\right) & \frac{-3\,\sqrt{2}\,U}{t} & \frac{-6\,U}{t} & 4 \\ \frac{2\,\sqrt{2}\,U}{t} & 0 & 4 & \frac{-5\,U}{t} \end{bmatrix}$$