$$K_{99}^{1} = \begin{bmatrix} -\mathbf{i}\sqrt{3} & \frac{U-\mathbf{i}\sqrt{3}\,U}{2\,t} & \frac{3\,\mathbf{i}+\sqrt{3}}{\sqrt{2}} \\ \frac{-\left(U+\mathbf{i}\sqrt{3}\,U\right)}{2\,t} & \mathbf{i}\sqrt{3} & 0 \\ -\left(\frac{-3\,\mathbf{i}+\sqrt{3}}{\sqrt{2}}\right) & 0 & 0 \end{bmatrix}$$