$$K^1_{101} = \begin{bmatrix} \frac{-\mathbf{i}}{2}\sqrt{3} & \frac{3\,\mathbf{i}}{4}\left(\mathbf{i}+\sqrt{3}\right) & 0 & \frac{U}{2\,t} & \frac{\sqrt{3}\,U}{2\,t} & \frac{\sqrt{3}}{2} & \frac{3\,\mathbf{i}-\sqrt{3}}{4} & 0 \\ \frac{3\left(1+\mathbf{i}\sqrt{3}\right)}{4} & \frac{\mathbf{i}}{2}\sqrt{3} & \frac{-\left(U+3\,\mathbf{i}\sqrt{3}\,U\right)}{4\,t} & 0 & 0 & \frac{3\left(-\mathbf{i}+\sqrt{3}\right)}{4} & \frac{3\,\mathbf{i}}{2} & \frac{\left(-3\,\mathbf{i}+\sqrt{3}\right)U}{4\,t} \\ 0 & \frac{U-3\,\mathbf{i}\sqrt{3}\,U}{4\,t} & \frac{-\mathbf{i}}{2}\sqrt{3} & -\left(\frac{3}{2}\right) & \frac{\sqrt{3}}{2} & 0 & \frac{-\left(\left(3\,\mathbf{i}+\sqrt{3}\right)U\right)}{4\,t} & \frac{-\sqrt{3}}{2} \\ \frac{-U}{2\,t} & 0 & \frac{3}{2} & \frac{\mathbf{i}}{2}\sqrt{3} & \frac{-3\,\mathbf{i}}{2} & \frac{\frac{-3\,\mathbf{i}}{2}U}{t} & 0 & \frac{3\,\mathbf{i}}{2} \\ \frac{-\left(\sqrt{3}\,U\right)}{2\,t} & 0 & \frac{-\sqrt{3}}{2} & \frac{-3\,\mathbf{i}}{2} & \frac{-\mathbf{i}}{2}\sqrt{3} & \frac{\frac{\mathbf{i}}{2}\sqrt{3}\,U}{t} & 0 & \frac{-\mathbf{i}}{2}\sqrt{3} \\ \frac{-\sqrt{3}}{2} & \frac{-3\left(\mathbf{i}+\sqrt{3}\right)}{4} & 0 & \frac{\frac{-3\,\mathbf{i}}{2}U}{t} & \frac{\frac{\mathbf{i}}{2}\sqrt{3}\,U}{t} & \frac{-\mathbf{i}}{2}\sqrt{3} & \frac{-\mathbf{i}}{4}\left(-3\,\mathbf{i}+\sqrt{3}\right) & 0 \\ \frac{3\,\mathbf{i}+\sqrt{3}}{4} & \frac{3\,\mathbf{i}}{2} & \frac{\left(-3\,\mathbf{i}+\sqrt{3}\right)U}{4\,t} & 0 & 0 & \frac{3-\mathbf{i}\sqrt{3}}{4} & \frac{-\mathbf{i}}{2}\sqrt{3} & \frac{\frac{-\mathbf{i}}{4}\left(-3\,\mathbf{i}+\sqrt{3}\right)U}{t} \\ 0 & \frac{-\left(\left(3\,\mathbf{i}+\sqrt{3}\right)U\right)}{4\,t} & \frac{\sqrt{3}}{2} & \frac{3\,\mathbf{i}}{2} & \frac{-\mathbf{i}}{2}\sqrt{3} & 0 & \frac{\left(3-\mathbf{i}\sqrt{3}\right)U}{4\,t} & \frac{-\mathbf{i}}{2}\sqrt{3} \end{bmatrix}$$