$$K_{46}^{1} = \begin{bmatrix} 0 & \frac{-3-\mathbf{i}\sqrt{3}}{\sqrt{2}} & 0 \\ \frac{3-\mathbf{i}\sqrt{3}}{\sqrt{2}} & \mathbf{i}\sqrt{3} & \frac{\frac{\mathbf{i}}{2}\left(\mathbf{i}+\sqrt{3}\right)U}{t} \\ 0 & \frac{U+\mathbf{i}\sqrt{3}\,U}{2\,t} & -\mathbf{i}\sqrt{3} \end{bmatrix}$$