$$
\begin{aligned}
\Psi_{177} &= C_1\left(|2duu\rangle - i\,|duu2\rangle + i\,|u2du\rangle - |uu2d\rangle\right)\\
&\quad + C_2\left(|2uud\rangle + i\,|d2uu\rangle - |ud2u\rangle - i\,|uud2\rangle\right)\\
&\quad + C_3\left(|2udu\rangle - |du2u\rangle + i\,|u2ud\rangle - i\,|udu2\rangle\right)\\
&\quad + C_4\left(-|0u22\rangle - i\,|20u2\rangle + |220u\rangle + i\,|u220\rangle\right)\\
&\quad + C_5\left(|22u0\rangle - i\,|2u02\rangle\right)\\
&\quad + C_6\left(-i\,|022u\rangle + |u022\rangle\right)\\
&\quad + C_7\left(i\,|02u2\rangle + |2u20\rangle\right)\\
&\quad + C_8\left(|202u\rangle + i\,|u202\rangle\right)
\end{aligned}
$$

$$
C_1 = \frac{\frac{-i}{3}\sqrt{2}\left(\sqrt{64\,t^4+3\,t^2\,U^2}\left(U-\sqrt{32\,t^2+U^2+4\sqrt{64\,t^4+3\,t^2\,U^2}}\right)+2\,t^2\left(2\,U+\sqrt{32\,t^2+U^2+4\sqrt{64\,t^4+3\,t^2\,U^2}}\right)\right)}{t\left(-U+\sqrt{32\,t^2+U^2+4\sqrt{64\,t^4+3\,t^2\,U^2}}\right)\left(4\,i\,t-U+\sqrt{32\,t^2+U^2+4\sqrt{64\,t^4+3\,t^2\,U^2}}\right)}
$$

$$
C_2 = \frac{3+\frac{2\,i\left(\sqrt{64\,t^4+3\,t^2\,U^2}\left(U-\sqrt{32\,t^2+U^2+4\sqrt{64\,t^4+3\,t^2\,U^2}}\right)+2\,t^2\left(2\,U+\sqrt{32\,t^2+U^2+4\sqrt{64\,t^4+3\,t^2\,U^2}}\right)\right)}{t\left(-U+\sqrt{32\,t^2+U^2+4\sqrt{64\,t^4+3\,t^2\,U^2}}\right)\left(4\,i\,t-U+\sqrt{32\,t^2+U^2+4\sqrt{64\,t^4+3\,t^2\,U^2}}\right)}}{6\sqrt{2}}
$$

$$
C_3 = \frac{-3+\frac{2\,i\left(\sqrt{64\,t^4+3\,t^2\,U^2}\left(U-\sqrt{32\,t^2+U^2+4\sqrt{64\,t^4+3\,t^2\,U^2}}\right)+2\,t^2\left(2\,U+\sqrt{32\,t^2+U^2+4\sqrt{64\,t^4+3\,t^2\,U^2}}\right)\right)}{t\left(-U+\sqrt{32\,t^2+U^2+4\sqrt{64\,t^4+3\,t^2\,U^2}}\right)\left(4\,i\,t-U+\sqrt{32\,t^2+U^2+4\sqrt{64\,t^4+3\,t^2\,U^2}}\right)}}{6\sqrt{2}}
$$

$$
C_4 = \frac{\sqrt{2}\left(-8\,i\,t^2+t\,U-i\sqrt{64\,t^4+3\,t^2\,U^2}\right)}{\left(-U+\sqrt{32\,t^2+U^2+4\sqrt{64\,t^4+3\,t^2\,U^2}}\right)\left(4\,i\,t-U+\sqrt{32\,t^2+U^2+4\sqrt{64\,t^4+3\,t^2\,U^2}}\right)}
$$

$$
C_5 = \frac{-2\,i\,\sqrt{2}\,t\sqrt{32\,t^2+U^2+4\sqrt{64\,t^4+3\,t^2\,U^2}}}{\left(-U+\sqrt{32\,t^2+U^2+4\sqrt{64\,t^4+3\,t^2\,U^2}}\right)\left(4\,i\,t-U+\sqrt{32\,t^2+U^2+4\sqrt{64\,t^4+3\,t^2\,U^2}}\right)}
$$

$$
C_6 = \frac{2\,i\,\sqrt{2}\,t\sqrt{32\,t^2+U^2+4\sqrt{64\,t^4+3\,t^2\,U^2}}}{\left(-U+\sqrt{32\,t^2+U^2+4\sqrt{64\,t^4+3\,t^2\,U^2}}\right)\left(4\,i\,t-U+\sqrt{32\,t^2+U^2+4\sqrt{64\,t^4+3\,t^2\,U^2}}\right)}
$$

$$
C_7 = \frac{\sqrt{2}\left(8\,i\,t^2-t\,U+i\sqrt{64\,t^4+3\,t^2\,U^2}+2\,t\sqrt{32\,t^2+U^2+4\sqrt{64\,t^4+3\,t^2\,U^2}}\right)}{\left(-U+\sqrt{32\,t^2+U^2+4\sqrt{64\,t^4+3\,t^2\,U^2}}\right)\left(4\,i\,t-U+\sqrt{32\,t^2+U^2+4\sqrt{64\,t^4+3\,t^2\,U^2}}\right)}
$$