d	$n_{2\mathrm{Q}}$ for $\bar{H}_{\mathrm{XY}}$	$n_{2\mathrm{Q}}$ for $\bar{H}_{\mathrm{XZ}}$	$n_{3\mathrm{Q}}$
3	5	21	4
5	9	73	16
d	$2d-1$	$4d^2-6d+3$	$(d-1)^2$

Table 1: The number of two-qubit gates ($n_{2\mathrm{Q}}$) and three-qubit gates ($n_{3\mathrm{Q}}$) required for implementing controlled-$\bar{H}_{\mathrm{XY}}$ and controlled-$\bar{H}_{\mathrm{XZ}}$ for different code distances d.