

ABSTRACT. We describe isomorphism patterns in the p -primary part of the Farrell cohomology ring $\widehat{H}^*(\mathrm{Sp}(p-1, \mathbb{Z}[1/n]), \mathbb{Z})$ for any odd prime p and suitable integers $0 \neq n \in \mathbb{Z}$, where

$$\mathrm{Sp}(p-1, \mathbb{Z}[1/n])$$

denotes the group of symplectic $(p-1) \times (p-1)$ matrices. Moreover, we determine the precise p -period of this ring.