Number of vertices $n = 7$.
Adjacencies of Graph

1. vertex 1 adjacent to 3 4 5 6
2. vertex 2 adjacent to 4 5 6 7
3. vertex 3 adjacent to 1 5 6 7
4. vertex 4 adjacent to 1 2 6 7
5. vertex 5 adjacent to 1 2 3 7
6. vertex 6 adjacent to 1 2 3 4
7. vertex 7 adjacent to 2 3 4 5

Size of automorphism group of the graph=14
Full group: $|Aut(polytope)| = 896$
Restricted group: $|Aut(G) \times switch| = 896$
Number of orbits for the full group : 3
List of orbits of facets for the full group: Total number of orbits = 3 Total number of facets = 148

1. Inequality 1 with incidence 48 and stabilizer of size 32. Orbit size is 28 nature: 3-cycle inequality, C=[2, 7, 4] F=[2, 7]

(1,3) : 0 (2,6) : 0 (4,7) : 1	(1,4) : 0 (2,7) : -1 (5,7) : 0	(1,5) : 0 (3,5) : 0	(1,6) : 0 (3,6) : 0	(2,4) : 1 (3,7) : 0	(2,5) : 0 (4,6) : 0

2. Inequality 2 with incidence 32 and stabilizer of size 16. Orbit size is 56 nature: 4-cycle inequality, C=[2, 6, 3, 7] F=[2, 6]

(1,3) : 0 (2,6) : -1 (4,7) : 0	(1,4) : 0 (2,7) : 1 (5,7) : 0	(1,5) : 0 (3,5) : 0	(1,6) : 0 (3,6) : 1	(2,4) : 0 (3,7) : 1	(2,5) : 0 (4,6) : 0

3. Inequality 3 with incidence 21 and stabilizer of size 14. Orbit size is 64 nature: unknown

(1,3) : 1 (2,6) : 1 (4,7) : 1	(1,4) : 1 (2,7) : -1 (5,7) : 1	(1,5) : -1 (3,5) : 1	(1,6) : 1 (3,6) : -1	(2,4) : 1 (3,7) : -1	(2,5) : 1 (4,6) : -1