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

1. vertex 1 adjacent to 5 6 7

2. vertex 2 adjacent to 5 6 7

3. vertex 3 adjacent to 5 6 7

4. vertex 4 adjacent to 5 6 7

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

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

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

Size of automorphism group of the graph=144
  Full group: $|Aut(polytope)| = 9216$
  Restricted group: $|Aut(G) \times switch| = 9216$
  Number of orbits for the full group : 2
  List of orbits of facets for the full group: Total number of orbits $= 2$ Total
number of facets $= 52$

1. Inequality 1 with incidence 48 and stabilizer of size 192. Orbit size is
   48 nature: 3-cycle inequality, C=[1, 6, 7] F=[1, 6]

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

2. Inequality 2 with incidence 48 and stabilizer of size 2304. Orbit size is
   4 nature: 3-cycle inequality, C=[5, 7, 6] F=[5, 7]

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