The group G is isomorphic to the group labelled by [720, 763] in the Small Groups library.

Ordinary character table of $G \cong$ S6:

	1a	2a	2b	2c	3a	3b	4a	4b	5a	6a	6b
χ_1	1	1	1	1	1	1	1	1	1	1	1
χ_2	1	−1	−1	1	1	1	1	−1	1	−1	−1
χ_3	5	−1	3	1	−1	2	−1	1	0	−1	0
χ_4	5	−3	1	1	2	−1	−1	−1	0	0	1
χ_5	5	1	−3	1	−1	2	−1	−1	0	1	0
χ_6	5	3	−1	1	2	−1	−1	1	0	0	−1
χ_7	9	3	3	1	0	0	1	−1	−1	0	0
χ_8	9	−3	−3	1	0	0	1	1	−1	0	0
χ_9	10	2	−2	−2	1	1	0	0	0	−1	1
χ_{10}	10	−2	2	−2	1	1	0	0	0	1	−1
χ_{11}	16	0	0	0	−2	−2	0	0	1	0	0

Trivial source character table of G $\cong$ S6 at p = 2

Normalisers N_i	N_1				N_2		N_3	N_4		N_5	N_6		N_7	N_8	N_9		N_{10}	N_{11}	N_{12}	N_{13}	N_{14}		N_{15}	N_{16}	N_{17}	N_{18}		N_{19}
p − subgroups of G up to conjugacy in G	P_1				P_2		P_3	P_4		P_5	P_6		P_7	P_8	P_9		P_{10}	P_{11}	P_{12}	P_{13}	P_{14}		P_{15}	P_{16}	P_{17}	P_{18}		P_{19}
Representatives $n_j \in N_i$	1a	3a	3b	5a	1a	3b	1a	1a	3a	1a	1a	3a	1a	1a	1a	3b	1a	1a	1a	1a	1a	3a	1a	1a	1a	1a	3b	1a
$1\cdot\chi_1+1\cdot\chi_2+1\cdot\chi_3+1\cdot\chi_4+1\cdot\chi_5+1\cdot\chi_6+1\cdot\chi_7+1\cdot\chi_8+2\cdot\chi_9+2\cdot\chi_{10}+0\cdot\chi_{11}$	80	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$0\cdot\chi_1+0\cdot\chi_2+1\cdot\chi_3+0\cdot\chi_4+1\cdot\chi_5+0\cdot\chi_6+1\cdot\chi_7+1\cdot\chi_8+1\cdot\chi_9+1\cdot\chi_{10}+0\cdot\chi_{11}$	48	0	6	−2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$0\cdot\chi_1+0\cdot\chi_2+0\cdot\chi_3+1\cdot\chi_4+0\cdot\chi_5+1\cdot\chi_6+1\cdot\chi_7+1\cdot\chi_8+1\cdot\chi_9+1\cdot\chi_{10}+0\cdot\chi_{11}$	48	6	0	−2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$0\cdot\chi_1+0\cdot\chi_2+0\cdot\chi_3+0\cdot\chi_4+0\cdot\chi_5+0\cdot\chi_6+0\cdot\chi_7+0\cdot\chi_8+0\cdot\chi_9+0\cdot\chi_{10}+1\cdot\chi_{11}$	16	−2	−2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$1\cdot\chi_1+0\cdot\chi_2+1\cdot\chi_3+1\cdot\chi_4+0\cdot\chi_5+0\cdot\chi_6+1\cdot\chi_7+0\cdot\chi_8+1\cdot\chi_9+1\cdot\chi_{10}+0\cdot\chi_{11}$	40	4	4	0	8	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$0\cdot\chi_1+0\cdot\chi_2+1\cdot\chi_3+0\cdot\chi_4+0\cdot\chi_5+0\cdot\chi_6+1\cdot\chi_7+0\cdot\chi_8+0\cdot\chi_9+1\cdot\chi_{10}+0\cdot\chi_{11}$	24	0	3	−1	8	−1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$1\cdot\chi_1+1\cdot\chi_2+1\cdot\chi_3+1\cdot\chi_4+1\cdot\chi_5+1\cdot\chi_6+1\cdot\chi_7+1\cdot\chi_8+0\cdot\chi_9+0\cdot\chi_{10}+0\cdot\chi_{11}$	40	4	4	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$1\cdot\chi_1+0\cdot\chi_2+0\cdot\chi_3+0\cdot\chi_4+1\cdot\chi_5+1\cdot\chi_6+1\cdot\chi_7+0\cdot\chi_8+1\cdot\chi_9+1\cdot\chi_{10}+0\cdot\chi_{11}$	40	4	4	0	0	0	0	8	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$0\cdot\chi_1+0\cdot\chi_2+0\cdot\chi_3+0\cdot\chi_4+0\cdot\chi_5+1\cdot\chi_6+1\cdot\chi_7+0\cdot\chi_8+1\cdot\chi_9+0\cdot\chi_{10}+0\cdot\chi_{11}$	24	3	0	−1	0	0	0	8	−1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$1\cdot\chi_1+0\cdot\chi_2+0\cdot\chi_3+0\cdot\chi_4+1\cdot\chi_5+1\cdot\chi_6+1\cdot\chi_7+0\cdot\chi_8+0\cdot\chi_9+0\cdot\chi_{10}+0\cdot\chi_{11}$	20	2	2	0	0	0	4	8	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$1\cdot\chi_1+1\cdot\chi_2+0\cdot\chi_3+1\cdot\chi_4+0\cdot\chi_5+1\cdot\chi_6+1\cdot\chi_7+0\cdot\chi_8+1\cdot\chi_9+0\cdot\chi_{10}+0\cdot\chi_{11}$	12	6	0	2	0	0	4	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$0\cdot\chi_1+0\cdot\chi_2+1\cdot\chi_3+0\cdot\chi_4+1\cdot\chi_5+0\cdot\chi_6+1\cdot\chi_7+1\cdot\chi_8+0\cdot\chi_9+0\cdot\chi_{10}+0\cdot\chi_{11}$	28	−2	4	−2	0	0	4	0	0	0	4	−2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$1\cdot\chi_1+0\cdot\chi_2+2\cdot\chi_3+1\cdot\chi_4+1\cdot\chi_5+2\cdot\chi_6+4\cdot\chi_7+1\cdot\chi_8+2\cdot\chi_9+2\cdot\chi_{10}+0\cdot\chi_{11}$	116	8	8	−4	12	0	4	12	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$1\cdot\chi_1+1\cdot\chi_2+0\cdot\chi_3+0\cdot\chi_4+0\cdot\chi_5+0\cdot\chi_6+1\cdot\chi_7+1\cdot\chi_8+0\cdot\chi_9+0\cdot\chi_{10}+0\cdot\chi_{11}$	20	2	2	0	0	0	4	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$1\cdot\chi_1+1\cdot\chi_2+1\cdot\chi_3+0\cdot\chi_4+1\cdot\chi_5+0\cdot\chi_6+0\cdot\chi_7+0\cdot\chi_8+0\cdot\chi_9+0\cdot\chi_{10}+0\cdot\chi_{11}$	12	0	6	2	0	0	4	0	0	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0
$0\cdot\chi_1+0\cdot\chi_2+0\cdot\chi_3+1\cdot\chi_4+0\cdot\chi_5+1\cdot\chi_6+1\cdot\chi_7+1\cdot\chi_8+0\cdot\chi_9+0\cdot\chi_{10}+0\cdot\chi_{11}$	28	4	−2	−2	0	0	4	0	0	0	0	0	0	0	4	−2	0	0	0	0	0	0	0	0	0	0	0	0
$1\cdot\chi_1+0\cdot\chi_2+1\cdot\chi_3+0\cdot\chi_4+0\cdot\chi_5+1\cdot\chi_6+0\cdot\chi_7+1\cdot\chi_8+0\cdot\chi_9+0\cdot\chi_{10}+0\cdot\chi_{11}$	20	2	2	0	0	0	4	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0
$1\cdot\chi_1+0\cdot\chi_2+1\cdot\chi_3+1\cdot\chi_4+0\cdot\chi_5+0\cdot\chi_6+1\cdot\chi_7+0\cdot\chi_8+0\cdot\chi_9+0\cdot\chi_{10}+0\cdot\chi_{11}$	20	2	2	0	8	2	4	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0
$1\cdot\chi_1+0\cdot\chi_2+1\cdot\chi_3+0\cdot\chi_4+0\cdot\chi_5+1\cdot\chi_6+2\cdot\chi_7+1\cdot\chi_8+1\cdot\chi_9+1\cdot\chi_{10}+0\cdot\chi_{11}$	58	4	4	−2	6	0	2	6	0	0	0	0	2	2	0	0	2	0	2	0	0	0	0	0	0	0	0	0
$1\cdot\chi_1+0\cdot\chi_2+0\cdot\chi_3+0\cdot\chi_4+0\cdot\chi_5+0\cdot\chi_6+1\cdot\chi_7+0\cdot\chi_8+0\cdot\chi_9+0\cdot\chi_{10}+0\cdot\chi_{11}$	10	1	1	0	4	1	2	4	1	2	0	0	0	2	0	0	2	0	2	0	0	0	0	0	0	0	0	0
$1\cdot\chi_1+0\cdot\chi_2+0\cdot\chi_3+1\cdot\chi_4+0\cdot\chi_5+1\cdot\chi_6+1\cdot\chi_7+0\cdot\chi_8+0\cdot\chi_9+1\cdot\chi_{10}+0\cdot\chi_{11}$	30	6	0	0	6	0	2	2	2	2	2	2	2	0	0	0	2	0	2	0	2	2	0	0	0	0	0	0
$0\cdot\chi_1+0\cdot\chi_2+1\cdot\chi_3+0\cdot\chi_4+1\cdot\chi_5+0\cdot\chi_6+1\cdot\chi_7+0\cdot\chi_8+0\cdot\chi_9+0\cdot\chi_{10}+0\cdot\chi_{11}$	14	−1	2	−1	6	0	2	2	−1	2	2	−1	2	0	0	0	2	0	2	0	2	−1	0	0	0	0	0	0
$1\cdot\chi_1+0\cdot\chi_2+1\cdot\chi_3+0\cdot\chi_4+0\cdot\chi_5+0\cdot\chi_6+0\cdot\chi_7+0\cdot\chi_8+0\cdot\chi_9+0\cdot\chi_{10}+0\cdot\chi_{11}$	6	0	3	1	4	1	2	0	0	0	0	0	0	0	2	2	2	2	0	0	0	0	2	0	0	0	0	0
$1\cdot\chi_1+0\cdot\chi_2+0\cdot\chi_3+0\cdot\chi_4+0\cdot\chi_5+1\cdot\chi_6+0\cdot\chi_7+0\cdot\chi_8+0\cdot\chi_9+0\cdot\chi_{10}+0\cdot\chi_{11}$	6	3	0	1	0	0	2	4	1	2	2	2	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0	0
$1\cdot\chi_1+1\cdot\chi_2+0\cdot\chi_3+0\cdot\chi_4+0\cdot\chi_5+0\cdot\chi_6+0\cdot\chi_7+0\cdot\chi_8+0\cdot\chi_9+0\cdot\chi_{10}+0\cdot\chi_{11}$	2	2	2	2	0	0	2	0	0	0	2	2	0	0	2	2	0	2	2	0	0	0	0	0	0	2	2	0
$1\cdot\chi_1+0\cdot\chi_2+1\cdot\chi_3+0\cdot\chi_4+1\cdot\chi_5+0\cdot\chi_6+1\cdot\chi_7+0\cdot\chi_8+1\cdot\chi_9+0\cdot\chi_{10}+0\cdot\chi_{11}$	30	0	6	0	2	2	2	6	0	2	0	0	2	0	2	2	0	0	0	0	0	0	0	0	0	2	2	0
$0\cdot\chi_1+0\cdot\chi_2+0\cdot\chi_3+0\cdot\chi_4+0\cdot\chi_5+1\cdot\chi_6+1\cdot\chi_7+0\cdot\chi_8+0\cdot\chi_9+0\cdot\chi_{10}+0\cdot\chi_{11}$	14	2	−1	−1	2	−1	2	6	0	2	0	0	2	0	2	−1	0	0	0	0	0	0	0	0	0	2	−1	0
$1\cdot\chi_1+0\cdot\chi_2+0\cdot\chi_3+0\cdot\chi_4+0\cdot\chi_5+0\cdot\chi_6+0\cdot\chi_7+0\cdot\chi_8+0\cdot\chi_9+0\cdot\chi_{10}+0\cdot\chi_{11}$	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

$P_1 = Group([()]) \cong 1$
$P_2 = Group([(1,2)]) \cong$ C2
$P_3 = Group([(3,4)(5,6)]) \cong$ C2
$P_4 = Group([(1,2)(3,4)(5,6)]) \cong$ C2
$P_5 = Group([(1,2)(3,5)(4,6),(3,4)(5,6)]) \cong$ C2 x C2
$P_6 = Group([(1,2)(3,4),(3,4)(5,6)]) \cong$ C2 x C2
$P_7 = Group([(1,2),(3,4)(5,6)]) \cong$ C2 x C2
$P_8 = Group([(1,2)(3,6,4,5),(3,4)(5,6)]) \cong$ C4
$P_9 = Group([(3,5)(4,6),(3,4)(5,6)]) \cong$ C2 x C2
$P_{10} = Group([(3,6,4,5),(3,4)(5,6)]) \cong$ C4
$P_{11} = Group([(3,4)(5,6),(3,4)]) \cong$ C2 x C2
$P_{12} = Group([(3,6,4,5),(1,2),(3,4)(5,6)]) \cong$ C4 x C2
$P_{13} = Group([(1,2)(3,5)(4,6),(3,4)(5,6),(3,4)]) \cong$ D8
$P_{14} = Group([(1,2),(3,4)(5,6),(3,4)]) \cong$ C2 x C2 x C2
$P_{15} = Group([(3,5)(4,6),(3,4)(5,6),(3,4)]) \cong$ D8
$P_{16} = Group([(1,2)(3,5)(4,6),(1,2)(3,4),(3,4)(5,6)]) \cong$ D8
$P_{17} = Group([(1,2)(3,4),(3,5)(4,6),(3,4)(5,6)]) \cong$ D8
$P_{18} = Group([(1,2),(3,5)(4,6),(3,4)(5,6)]) \cong$ C2 x C2 x C2
$P_{19} = Group([(1,2),(3,5)(4,6),(3,4)]) \cong$ C2 x D8

$N_1 = SymmetricGroup([1..6]) \cong$ S6
$N_2 = Group([(4,5),(1,2),(5,6),(3,4)]) \cong$ C2 x S4
$N_3 = Group([(1,2),(3,5)(4,6),(3,4)(5,6),(5,6)]) \cong$ C2 x D8
$N_4 = Group([(1,2)(3,4)(5,6),(1,3)(2,4),(3,5)(4,6),(5,6),(3,4)]) \cong$ C2 x S4
$N_5 = Group([(1,2)(3,5)(4,6),(1,2),(3,4)(5,6),(5,6)]) \cong$ C2 x D8
$N_6 = Group([(1,2)(3,4),(1,3)(2,4),(3,5)(4,6),(3,4)(5,6),(5,6)]) \cong$ C2 x S4
$N_7 = Group([(1,2),(3,5)(4,6),(3,4)(5,6),(5,6)]) \cong$ C2 x D8
$N_8 = Group([(1,2)(3,6,4,5),(1,2),(3,4)(5,6),(5,6)]) \cong$ C2 x D8
$N_9 = Group([(4,5),(1,2),(3,5)(4,6),(3,4)(5,6),(5,6)]) \cong$ C2 x S4
$N_{10} = Group([(1,2),(3,6,4,5),(3,4)(5,6),(5,6)]) \cong$ C2 x D8
$N_{11} = Group([(1,2),(3,5)(4,6),(3,4)(5,6),(5,6),(3,4)]) \cong$ C2 x D8
$N_{12} = Group([(1,2),(3,6,4,5),(3,4)(5,6),(5,6)]) \cong$ C2 x D8
$N_{13} = Group([(1,2)(3,5)(4,6),(1,2),(3,4)(5,6),(5,6),(3,4)]) \cong$ C2 x D8
$N_{14} = Group([(1,3)(2,4),(1,2),(3,5)(4,6),(3,4)(5,6),(5,6),(3,4)]) \cong$ C2 x S4
$N_{15} = Group([(1,2),(3,5)(4,6),(3,4)(5,6),(5,6),(3,4)]) \cong$ C2 x D8
$N_{16} = Group([(1,2)(3,5)(4,6),(1,2)(5,6),(1,2)(3,4),(1,2),(3,4)(5,6)]) \cong$ C2 x D8
$N_{17} = Group([(1,2)(5,6),(1,2)(3,4),(1,2),(3,5)(4,6),(3,4)(5,6)]) \cong$ C2 x D8
$N_{18} = Group([(4,5),(1,2),(3,5)(4,6),(3,4)(5,6),(5,6)]) \cong$ C2 x S4
$N_{19} = Group([(1,2),(3,5)(4,6),(5,6),(3,4)]) \cong$ C2 x D8