The group G is isomorphic to the group labelled by [12, 4] in the Small Groups library.
Ordinary character table of $G \cong$ D12:

	$1a$	$2a$	$3a$	$6a$	$2b$	$2c$
χ_1	1	1	1	1	1	1
χ_2	1	1	1	1	-1	-1
χ_3	1	-1	1	-1	1	-1
χ_4	1	-1	1	-1	-1	1
χ_5	2	2	-1	-1	0	0
χ_6	2	-2	-1	1	0	0

Trivial source character table of $G \cong$ D12 at $p = 2$:

Normalisers N_i	N_1		N_2		N_3	N_4	N_5
p-subgroups of G up to conjugacy in G	P_1		P_2		P_3	P_4	P_5
Representatives $n_j \in N_i$	$1a$	$3a$	$1a$	$3a$	$1a$	$1a$	$1a$
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6$	4	4	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6$	4	-2	0	0	0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6$	2	2	2	2	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6$	2	-1	2	-1	0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6$	2	2	0	0	2	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6$	2	2	0	0	0	2	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	1	1	1	1	1	1

$P_1 = Group([()]) \cong 1$
$P_2 = Group([(1,3)(2,5)(4,7)(6,9)(8,11)(10,12)]) \cong$ C2
$P_3 = Group([(1,2)(3,5)(4,10)(6,8)(7,12)(9,11)]) \cong$ C2
$P_4 = Group([(1,5)(2,3)(4,12)(6,11)(7,10)(8,9)]) \cong$ C2
$P_5 = Group([(1,3)(2,5)(4,7)(6,9)(8,11)(10,12), (1,2)(3,5)(4,10)(6,8)(7,12)(9,11)]) \cong$ C2 x C2

$N_1 = Group([(1,2)(3,5)(4,10)(6,8)(7,12)(9,11), (1,3)(2,5)(4,7)(6,9)(8,11)(10,12), (1,4,8)(2,6,10)(3,7,11)(5,9,12)]) \cong$ D12
$N_2 = Group([(1,2)(3,5)(4,10)(6,8)(7,12)(9,11), (1,3)(2,5)(4,7)(6,9)(8,11)(10,12), (1,4,8)(2,6,10)(3,7,11)(5,9,12)]) \cong$ D12
$N_3 = Group([(1,2)(3,5)(4,10)(6,8)(7,12)(9,11), (1,3)(2,5)(4,7)(6,9)(8,11)(10,12)]) \cong$ C2 x C2
$N_4 = Group([(1,5)(2,3)(4,12)(6,11)(7,10)(8,9), (1,2)(3,5)(4,10)(6,8)(7,12)(9,11), (1,3)(2,5)(4,7)(6,9)(8,11)(10,12)]) \cong$ C2 x C2
$N_5 = Group([(1,2)(3,5)(4,10)(6,8)(7,12)(9,11), (1,3)(2,5)(4,7)(6,9)(8,11)(10,12)]) \cong$ C2 x C2