

The group G is isomorphic to the group labelled by [336, 208] in the Small Groups library.
 Ordinary character table of $G \cong \text{PSL}(3,2) : \text{C2}$:

	1 <i>a</i>	3 <i>a</i>	6 <i>a</i>	2 <i>a</i>	7 <i>a</i>	2 <i>b</i>	8 <i>a</i>		8 <i>b</i>	4 <i>a</i>
χ_1	1	1	1	1	1	1	1		1	1
χ_2	1	1	−1	−1	1	1	−1		−1	1
χ_3	6	0	0	0	−1	−2	0		0	2
χ_4	6	0	0	0	−1	2	$-E(8) + E(8)^3$		$E(8) - E(8)^3$	0
χ_5	6	0	0	0	−1	2	$E(8) - E(8)^3$		$-E(8) + E(8)^3$	0
χ_6	7	1	−1	−1	0	−1	1		1	−1
χ_7	7	1	1	1	0	−1	−1		−1	−1
χ_8	8	−1	−1	2	1	0	0		0	0
χ_9	8	−1	1	−2	1	0	0		0	0

Trivial source character table of $G \cong \text{PSL}(3,2) : \text{C2}$ 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}
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}
Representatives $n_j \in N_i$	1 <i>a</i>	3 <i>a</i>	7 <i>a</i>	1 <i>a</i>	1 <i>a</i>	3 <i>a</i>	1 <i>a</i>	1 <i>a</i>	1 <i>a</i>	1 <i>a</i>	3 <i>a</i>	1 <i>a</i>	1 <i>a</i>	1 <i>a</i>	1 <i>a</i>
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 1 \cdot \chi_9$	16	−2	2	0	0	0	0	0	0	0	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$	32	2	−3	0	0	0	0	0	0	0	0	0	0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$	16	4	2	0	0	0	0	0	0	0	0	0	0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 2 \cdot \chi_4 + 2 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$	40	4	−2	8	0	0	0	0	0	0	0	0	0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$	8	2	1	0	2	2	0	0	0	0	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9$	8	−1	1	0	2	−1	0	0	0	0	0	0	0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$	20	2	−1	4	2	2	2	0	0	0	0	0	0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 2 \cdot \chi_3 + 2 \cdot \chi_4 + 2 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$	52	4	−4	4	0	0	0	4	0	0	0	0	0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$	28	4	0	4	0	0	0	0	2	2	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$	12	0	−2	4	0	0	0	0	2	−1	0	0	0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$	26	2	−2	2	2	2	2	2	0	0	2	0	0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$	2	2	2	2	0	0	0	2	2	2	0	2	0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$	26	2	−2	2	0	0	0	2	0	0	0	0	2	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

- $P_1 = \textit{Group}([(())]) \cong 1$
 $P_2 = \textit{Group}([(1,2)(3,8)(4,5)(6,7)]) \cong \text{C2}$
 $P_3 = \textit{Group}([(3,7)(4,5)(6,8)]) \cong \text{C2}$
 $P_4 = \textit{Group}([(1,2)(3,8)(4,5)(6,7),(3,7)(4,5)(6,8)]) \cong \text{C2 x C2}$
 $P_5 = \textit{Group}([(1,2)(3,8)(4,5)(6,7),(1,5,2,4)(3,6,8,7)]) \cong \text{C4}$
 $P_6 = \textit{Group}([(1,2)(3,8)(4,5)(6,7),(1,3)(2,8)(4,6)(5,7)]) \cong \text{C2 x C2}$
 $P_7 = \textit{Group}([(1,2)(3,8)(4,5)(6,7),(1,4)(2,5)(3,8),(3,7)(4,5)(6,8)]) \cong \text{D8}$
 $P_8 = \textit{Group}([(1,2)(3,8)(4,5)(6,7),(1,3)(2,8)(4,6)(5,7),(1,5,2,4)(3,6,8,7)]) \cong \text{D8}$
 $P_9 = \textit{Group}([(1,2)(3,8)(4,5)(6,7),(1,7,4,8,2,6,5,3),(1,5,2,4)(3,6,8,7)]) \cong \text{C8}$
 $P_{10} = \textit{Group}([(1,2)(3,8)(4,5)(6,7),(1,4)(2,5)(3,8),(3,7)(4,5)(6,8),(1,3)(2,8)(4,6)(5,7)]) \cong \text{D16}$

- $N_1 = \textit{Group}([(2,4)(3,5)(7,8),(1,2,3)(4,6,7)]) \cong \text{PSL}(3,2) : \text{C2}$
 $N_2 = \textit{Group}([(1,2)(3,8)(4,5)(6,7),(3,7)(4,5)(6,8),(1,5)(2,4)(6,7),(1,3)(2,8)(4,6)(5,7)]) \cong \text{D16}$
 $N_3 = \textit{Group}([(3,7)(4,5)(6,8),(3,5,6,7,4,8),(1,2)(3,4)(5,7)]) \cong \text{D12}$
 $N_4 = \textit{Group}([(3,7)(4,5)(6,8),(1,2)(3,8)(4,5)(6,7),(1,5)(2,4)(6,7)]) \cong \text{D8}$
 $N_5 = \textit{Group}([(1,5,2,4)(3,6,8,7),(1,2)(3,8)(4,5)(6,7),(3,7)(4,5)(6,8),(1,3)(2,8)(4,6)(5,7)]) \cong \text{D16}$
 $N_6 = \textit{Group}([(1,3)(2,8)(4,6)(5,7),(1,2)(3,8)(4,5)(6,7),(2,3,8)(4,5,7),(1,4,2,5)(3,7,8,6)]) \cong \text{S4}$
 $N_7 = \textit{Group}([(3,7)(4,5)(6,8),(1,4)(2,5)(3,8),(1,2)(3,8)(4,5)(6,7),(1,3)(2,8)(4,6)(5,7)]) \cong \text{D16}$
 $N_8 = \textit{Group}([(1,5,2,4)(3,6,8,7),(1,3)(2,8)(4,6)(5,7),(1,2)(3,8)(4,5)(6,7),(3,7)(4,5)(6,8)]) \cong \text{D16}$
 $N_9 = \textit{Group}([(1,7,4,8,2,6,5,3),(1,4,2,5)(3,7,8,6),(1,2)(3,8)(4,5)(6,7),(3,7)(4,5)(6,8)]) \cong \text{D16}$
 $N_{10} = \textit{Group}([(1,7)(2,6)(3,4)(5,8),(3,7)(4,5)(6,8),(1,5)(2,4)(6,7),(1,2)(3,8)(4,5)(6,7)]) \cong \text{D16}$