The group G is isomorphic to the group labelled by [72, 44] in the Small Groups library. Ordinary character table of  $G \cong A4 \times S3$ :

	1 <i>a</i>	3a	3b	2a	2b	6a	6b	2c	3c	3d	3e	6c
$\chi_1$	1	1	1	1	1	1	1	1	1	1	1	1
$\chi_2$	1	1	1	1	-1	-1	-1	-1	1	1	1	1
<i>χ</i> <sub>3</sub>	1	$E(3)^{2}$	E(3)	1	-1	$-E(3)^2$	-E(3)	-1	1	$E(3)^{2}$	E(3)	1
$\chi_4$	1	E(3)	$E(3)^{2}$	1	-1	-E(3)	$-E(3)^2$	-1	1	E(3)	$E(3)^{2}$	1
$\chi_5$	1	$E(3)^{2}$	E(3)	1	1	$E(3)^{2}$	E(3)	1	1	$E(3)^{2}$	E(3)	1
$\chi_6$	1	E(3)	$E(3)^{2}$	1	1	E(3)	$E(3)^{2}$	1	1	E(3)	$E(3)^{2}$	1
$\chi_7$	2	2	2	2	0	0	0	0	-1	-1	-1	-1
$\chi_8$	2	$2 * E(3)^2$	2 * E(3)	2	0	0	0	0	-1	$-E(3)^2$	-E(3)	-1
$\chi_9$	2	2 * E(3)	$2 * E(3)^2$	2	0	0	0	0	-1	-E(3)	$-E(3)^2$	-1
$\chi_{10}$	3	0	0	-1	-3	0	0	1	3	0	0	-1
$\chi_{11}$	3	0	0	-1	3	0	0	-1	3	0	0	-1
$\chi_{12}$	6	0	0	-2	0	0	0	0	-3	0	0	1

Trivial source character table of  $G \cong A4 \times S3$  at p = 2:

Trivial source character table of $G = A4 \times 55$ at $p = 2$ .																					
Normalisers $N_i$		$N_1$					$N_2$				$N_3$ $N$				$N_5$			$N_6$	$N_7$	Λ	$V_8$
p-subgroups of $G$ up to conjugacy in $G$		$P_1$				$P_2$			I	$P_3$ $P_4$		$P_5$				j		$P_6$ $P_7$		P <sub>8</sub>	
Representatives $n_j \in N_i$		3a	3b	3c	3d	3e	1a	3b	3a	1a	3a	1a	1a $3b$	3c	3a	3e	3d	1a	1a   1	a = 3b	3a
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 1 \cdot \chi_{10} + 1 \cdot \chi_{11} + 0 \cdot \chi_{12}$	8	2 * E(3)	$2*E(3)^2$	8	2 * E(3)	$2*E(3)^2$	0	0	0	0	0	0	0 0	0	0	0	0	0	0	) 0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 1 \cdot \chi_{10} + 1 \cdot \chi_{11} + 0 \cdot \chi_{12}$	8	$2 * E(3)^2$	2 * E(3)	8	$2 * E(3)^2$	2 * E(3)	0	0	0	0	0	0	0 0	0	0	0	0	0	0   0	) 0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 1 \cdot \chi_{10} + 1 \cdot \chi_{11} + 0 \cdot \chi_{12}$	8	2	2	8	2	2	0	0	0	0	0	0	0 0	0	0	0	0	0	0   0	) 0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 1 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 1 \cdot \chi_{12}$	8	2 * E(3)	$2 * E(3)^2$	-4	-E(3)	$-E(3)^{2}$	0	0	0	0	0	0	0 0	0	0	0	0	0	0   0	) 0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 1 \cdot \chi_{12}$	8	$2 * E(3)^2$	2 * E(3)	-4	$-E(3)^2$	-E(3)	0	0	0	0	0	0	0 0	0	0	0	0	0	0	) 0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 1 \cdot \chi_{12}$	8	2	2	-4	-1	-1	0	0	0	0	0	0	0 0	0	0	0	0	0	0	) 0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 1 \cdot \chi_{11} + 0 \cdot \chi_{12}$	4	E(3)	$E(3)^{2}$	4	E(3)	$E(3)^{2}$	4	$E(3)^2$	E(3)	0	0	0	0 0	0	0	0	0	0	0	) 0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 1 \cdot \chi_{11} + 0 \cdot \chi_{12}$	4	$E(3)^{2}$	E(3)	4	$E(3)^{2}$	E(3)	4	E(3)	$E(3)^{2}$	0	0	0	0 0	0	0	0	0	0	0   0	) 0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 1 \cdot \chi_{11} + 0 \cdot \chi_{12}$	4	1	1	4	1	1	4	1	1	0	0	0	0 0	0	0	0	0	0	0	) 0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 1 \cdot \chi_{10} + 1 \cdot \chi_{11} + 0 \cdot \chi_{12}$	12	0	0	12	0	0	0	0	0	4	4	0	0 0	0	0	0	0	0	0	) 0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 1 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 1 \cdot \chi_{12}$	12	0	0	-6	0	0	0	0	0	4	-2	0	0 0	0	0	0	0	0	0	) 0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 2 \cdot \chi_{10} + 1 \cdot \chi_{11} + 0 \cdot \chi_{12}$	12	0	0	12	0	0	0	0	0	0	0	4	0 0	0	0	0	0	0	0	) 0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	2	2	2	2	2	2	0	0	0	2	2	0	2 2	2	2	2	2	0	0	) 0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$		2	2	-1	-1	-1	0	0	0	2	-1	0	2 2	-1	2	-1	-1	0	0	) 0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	2	$2 * E(3)^2$	2 * E(3)	-1	$-E(3)^2$	-E(3)	0	0	0	2	-1	0	2   2 * E(3)	-1	$2 * E(3)^2$	-E(3)	$-E(3)^2$	0	0	) 0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 1 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	2	2 * E(3)	$2 * E(3)^2$	-1	-E(3)	$-E(3)^2$	0	0	0	2	-1	0	$2   2 * E(3)^2$	-1	2 * E(3)	$-E(3)^2$	-E(3)	0	0	) 0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	2	$2*E(3)^2$	2 * E(3)	2	$2 * E(3)^2$	2 * E(3)	0	0	0	2	2	0	2   2 * E(3)	2	$2*E(3)^2$	2 * E(3)	$2*E(3)^2$	0	0	) 0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	2	2 * E(3)	$2*E(3)^2$	2	2 * E(3)	$2 * E(3)^2$	0	0	0	2	2	0	$2   2 * E(3)^2$	2	2 * E(3)	$2*E(3)^2$	2 * E(3)	0	0	) 0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 1 \cdot \chi_{11} + 0 \cdot \chi_{12}$	6	0	0	6	0	0	6	0	0	2	2	2	0 0	0	0	0	0	2	0	) 0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 1 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	6	0	0	6	0	0	0	0	0	2	2	4	0 0	0	0	0	0	0	2	0 0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	1	1	1	1	1	1	1	1	1	1	1	1	1 1	1	1	1	1	1	1	1 1	1
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	1	$E(3)^{2}$	E(3)	1	$E(3)^{2}$	E(3)	1	E(3)	$E(3)^{2}$	1	1	1	1   E(3)	1	$E(3)^{2}$	E(3)	$E(3)^{2}$	1	1	1  E(3)	$E(3)^2$
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$		E(3)	$E(3)^2$	1	E(3)	$E(3)^2$	1	$E(3)^2$	E(3)	1	1	1	1 $E(3)^{2}$	1	E(3)	$E(3)^2$	E(3)	1	1	1  E(3)	$\stackrel{(2)}{E}$ $\stackrel{(3)}{E}$
	-																				

```
P_1 = Group([()]) \cong 1
```

 $P_2 = Group([(2,3)]) \cong C2$ 

 $P_3 = Group([(4,5)(6,7)]) \cong C2$ 

 $P_4 = Group([(2,3)(4,5)(6,7)]) \cong C2$ 

 $P_5 = Group([(4,5)(6,7),(4,7)(5,6)]) \cong C2 \times C2$ 

 $P_6 = Group([(2,3),(4,7)(5,6)]) \cong C2 \times C2$ 

 $P_7 = Group([(2,3)(4,5)(6,7),(4,7)(5,6)]) \cong C2 \times C2$ 

 $P_8 = Group([(2,3), (4,5)(6,7), (4,7)(5,6)]) \cong C2 \times C2 \times C2$ 

 $N_1 = Group([(2,3),(5,7,6),(4,5)(6,7),(4,6)(5,7),(1,2,3)]) \cong A4 \times S3$   $N_2 = Group([(2,3),(5,7,6),(4,6)(5,7),(4,7)(5,6)]) \cong C2 \times A4$ 

 $N_3 = Group([(4,5)(6,7), (4,6)(5,7), (4,7)(5,6), (2,3), (1,3,2)]) \cong C2 \times C2 \times S3$ 

 $N_4 = Group([(2,3)(4,5)(6,7),(4,6)(5,7),(4,7)(5,6),(2,3)]) \cong C2 \times C2 \times C2$ 

 $N_5 = Group([(2,3),(5,7,6),(4,5)(6,7),(4,6)(5,7),(1,2,3)]) \cong A4 \times S3$ 

 $N_6 = Group([(4,7)(5,6),(2,3),(4,6)(5,7)]) \cong C2 \times C2 \times C2$ 

 $N_7 = Group([(4,7)(5,6),(2,3)(4,5)(6,7),(2,3)]) \cong C2 \times C2 \times C2$ 

 $N_8 = Group([(4,7)(5,6),(4,5)(6,7),(2,3),(5,7,6)]) \cong C2 \times A4$