The group G is isomorphic to the group labelled by [24, 6] in the Small Groups library. Ordinary character table of  $G \cong D24$ :

	1a	12a	6a	4a	3a	12b	2a	2b	2c
$\chi_1$	1	1	1	1	1	1	1	1	1
$\chi_2$	1	1	1	1	1	1	1	-1	-1
$\chi_3$	1	-1	1	-1	1	-1	1	1	-1
$\chi_4$	1	-1	1	-1	1	-1	1	-1	1
$\chi_5$	2	$-E(12)^7 + E(12)^{11}$	1	0	-1	$E(12)^7 - E(12)^{11}$	-2	0	0
$\chi_6$	2	1	-1	-2	-1	1	2	0	0
$\chi_7$	2	0	-2	0	2	0	-2	0	0
$\chi_8$	2	-1	-1	2	-1	-1	2	0	0
$\chi_9$	2	$E(12)^7 - E(12)^{11}$	1	0	-1	$-E(12)^7 + E(12)^{11}$	-2	0	0

## Trivial source character table of $G \cong D24$ at p = 2:

Normalisers $N_i$	1	$V_1$	1	$V_2$	$N_3$	$N_4$	1	$V_5$	$N_6$	$N_7$	$N_8$
p-subgroups of $G$ up to conjugacy in $G$		$P_1$		$P_2$		$P_4$	1	D <sub>5</sub>	$P_6$	$P_7$	$P_8$
Representatives $n_j \in N_i$	1a	3a	1a	3a	1a	1a	1a	3a	1a	1a	1a
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 2 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$	8	8	0	0	0	0	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 1 \cdot \chi_9$	8	-4	0	0	0	0	0	0	0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$	4	4	4	4	0	0	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9$	4	-2	4	-2	0	0	0	0	0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$	4	4	0	0	2	0	0	0	0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$	4	4	0	0	0	2	0	0	0	0	0
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$	2	2	2	2	0	0	2	2	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9$	2	-1	2	-1	0	0	2	-1	0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$	2	2	2	2	2	0	0	0	2	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$	2	2	2	2	0	2	0	0	0	2	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9$	1	1	1	1	1	1	1	1	1	1	1

```
P_{1} = Group([()]) \cong 1
P_{2} = Group([(1,4)(2,7)(3,9)(5,11)(6,13)(8,15)(10,17)(12,19)(14,20)(16,22)(18,23)(21,24)]) \cong C2
P_{3} = Group([(1,2)(3,13)(4,7)(5,16)(6,9)(8,12)(10,24)(11,22)(14,23)(15,19)(17,21)(18,20)]) \cong C2
P_{4} = Group([(1,13)(2,9)(3,7)(4,6)(5,24)(8,23)(10,22)(11,21)(12,20)(14,19)(15,18)(16,17)]) \cong C2
P_{7} = Group([(1,4)(2,7)(3,9)(5,11)(6,13)(8,15)(10,17)(12,19)(14,20)(16,22)(18,23)(21,24), (1,3,4,9)(2,6,7,13)(5,10,11,17)(8,14,15)
```

- $P_5 = Group([(1,4)(2,7)(3,9)(5,11)(6,13)(8,15)(10,17)(12,19)(14,20)(16,22)(18,23)(21,24),(1,3,4,9)(2,6,7,13)(5,10,11,17)(8,14,15,20)(12,18,19,23)(16,21,22,24)]) \cong C4$   $P_6 = Group([(1,4)(2,7)(3,9)(5,11)(6,13)(8,15)(10,17)(12,19)(14,20)(16,22)(18,23)(21,24),(1,2)(3,13)(4,7)(5,16)(6,9)(8,12)(10,24)(11,22)(14,23)(15,19)(17,21)(18,20)]) \cong C2 \times C2$
- $P_7 = Group([(1,4)(2,7)(3,9)(5,11)(6,13)(8,15)(10,17)(12,19)(14,20)(16,22)(18,23)(21,24), (1,13)(2,9)(3,7)(4,6)(5,24)(8,23)(10,22)(11,21)(12,20)(14,19)(15,18)(16,17)]) \cong \mathbb{C}_2 \times \mathbb{C}_2$
- $P_8 = Group([(1,4)(2,7)(3,9)(5,11)(6,13)(8,15)(10,17)(12,19)(14,20)(16,22)(18,23)(21,24), (1,3,4,9)(2,6,7,13)(5,10,11,17)(8,14,15,20)(12,18,19,23)(16,21,22,24), (1,2)(3,13)(4,7)(5,16)(6,9)(8,12)(10,24)(11,22)(14,23)(15,19)(17,21)(18,20)]) \\ \cong D_8 = Group([(1,4)(2,7)(3,9)(5,11)(6,13)(8,15)(10,17)(12,19)(14,20)(16,22)(18,23)(21,24), (1,3,4,9)(2,6,7,13)(5,10,11,17)(8,14,15,20)(12,18,19,23)(16,21,22,24), (1,2)(3,13)(4,7)(5,16)(6,9)(8,12)(10,24)(11,22)(14,23)(15,19)(17,21)(18,20)]) \\ \cong D_8 = Group([(1,4)(2,7)(3,9)(5,11)(6,13)(8,15)(10,17)(12,19)(14,20)(16,22)(18,23)(12,24), (1,3,4,9)(2,6,7,13)(16,21,22,24), (1,2)(16,21)($
- $N_1 = Group([(1,2)(3,13)(4,7)(5,16)(6,9)(8,12)(10,24)(11,22)(14,23)(15,19)(17,21)(18,20), (1,3,4,9)(2,6,7,13)(5,10,11,17)(8,14,15,20)(12,18,19,23)(16,21,22,24), (1,4)(2,7)(3,9)(5,11)(6,13)(8,15)(10,17)(12,19)(14,20)(16,22)(18,23)(21,24), (1,5,12)(2,8,16)(3,10,18)(4,11,19)(6,14,21)(7,15,22)(9,17,23)(13,20,24)]) \cong D24$   $N_2 = Group([(1,2)(3,13)(4,7)(5,16)(6,9)(8,12)(10,24)(11,22)(14,23)(15,19)(17,21)(18,20), (1,3,4,9)(2,6,7,13)(5,10,11,17)(8,14,15,20)(12,18,19,23)(16,21,22,24), (1,4)(2,7)(3,9)(5,11)(6,13)(8,15)(10,17)(12,19)(14,20)(16,22)(18,23)(21,24), (1,5,12)(2,8,16)(3,10,18)(4,11,19)(6,14,21)(7,15,22)(9,17,23)(13,20,24)]) \cong D24$   $N_3 = Group([(1,2)(3,13)(4,7)(5,16)(6,9)(8,12)(10,24)(11,22)(14,23)(15,19)(17,21)(18,20), (1,7)(2,4)(3,6)(5,22)(8,19)(9,13)(10,21)(11,16)(12,15)(14,18)(17,24)(20,23)]) \cong C2 \times C2$   $N_4 = Group([(1,3)(2,9)(3,7)(4,6)(5,24)(8,23)(10,22)(11,21)(12,20)(14,19)(15,18)(16,17), (1,6)(2,3)(4,13)(5,21)(7,9)(8,18)(10,16)(11,24)(12,14)(15,23)(17,22)(19,20)]) \cong C2 \times C2$   $N_5 = Group([(1,3,4,9)(2,6,7,13)(5,10,11,17)(8,14,15,20)(12,18,19,23)(16,21,22,24), (1,4)(2,7)(3,9)(5,11)(6,13)(8,15)(10,17)(12,19)(14,20)(16,22)(18,23)(21,24), (1,5,12)(2,8,16)(3,10,18)(4,11,19)(6,14,21)(7,15,22)(9,17,23)(13,20,24)]) \cong D24$   $N_6 = Group([(1,2)(3,13)(4,7)(5,16)(6,9)(8,12)(10,24)(11,22)(14,23)(15,19)(17,21)(18,20), (1,5,12)(13,21)(13,21)(1$
- $N_7 = Group([(1,13)(2,9)(3,7)(4,6)(5,24)(8,23)(10,22)(11,21)(12,20)(14,19)(15,18)(16,17), (1,4)(2,7)(3,9)(5,11)(6,13)(8,15)(10,17)(12,19)(14,20)(16,22)(18,23)(21,24), (1,2)(3,13)(4,7)(5,16)(6,9)(8,12)(10,24)(11,22)(14,23)(15,19)(17,21)(18,20)]) \cong D8$
- $N_8 = Group([(1,2)(3,13)(4,7)(5,16)(6,9)(8,12)(10,24)(11,22)(14,23)(15,19)(17,21)(18,20), (1,3,4,9)(2,6,7,13)(5,10,11,17)(8,14,15,20)(12,18,19,23)(16,21,22,24), (1,4)(2,7)(3,9)(5,11)(6,13)(8,15)(10,17)(12,19)(14,20)(16,22)(18,23)(21,24)]) \cong D_8$