

The group G is isomorphic to the group labelled by [24, 1] in the Small Groups library.
 Ordinary character table of $G \cong C3 : C8$:

	1a	2a	4a	4b	3a	6a	12a	12b	8a	8b	8c	8d
χ_1	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	-1
χ_3	1	1	-1	-1	1	1	-1	-1	$E(4)$	$E(4)$	$-E(4)$	$-E(4)$
χ_4	1	1	-1	-1	1	1	-1	-1	$-E(4)$	$-E(4)$	$E(4)$	$E(4)$
χ_5	1	-1	$E(4)$	$-E(4)$	1	-1	$E(4)$	$-E(4)$	$E(8)$	$-E(8)$	$E(8)^3$	$-E(8)^3$
χ_6	1	-1	$E(4)$	$-E(4)$	1	-1	$E(4)$	$-E(4)$	$-E(8)$	$E(8)$	$-E(8)^3$	$E(8)^3$
χ_7	1	-1	$-E(4)$	$E(4)$	1	-1	$-E(4)$	$E(4)$	$E(8)^3$	$-E(8)^3$	$E(8)$	$-E(8)$
χ_8	1	-1	$-E(4)$	$E(4)$	1	-1	$-E(4)$	$E(4)$	$-E(8)^3$	$E(8)^3$	$-E(8)$	$E(8)$
χ_9	2	2	2	2	-1	-1	-1	-1	0	0	0	0
χ_{10}	2	2	-2	-2	-1	-1	1	1	0	0	0	0
χ_{11}	2	-2	$2 * E(4)$	$-2 * E(4)$	-1	1	$-E(4)$	$E(4)$	0	0	0	0
χ_{12}	2	-2	$-2 * E(4)$	$2 * E(4)$	-1	1	$E(4)$	$-E(4)$	0	0	0	0

Trivial source character table of $G \cong C3 : C8$ at $p = 2$:

Normalisers N_i	N_1		N_2		N_3		N_4	
	P_1	P_2	P_3	P_4	P_1	P_2	P_3	P_4
Representatives $n_j \in N_i$	1a	3a	1a	3a	1a	3a	1a	
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	8	8	0	0	0	0	0	
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 1 \cdot \chi_9 + 1 \cdot \chi_{10} + 1 \cdot \chi_{11} + 1 \cdot \chi_{12}$	8	-4	0	0	0	0	0	
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 1 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	4	4	4	4	0	0	0	
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 1 \cdot \chi_9 + 1 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	4	-2	4	-2	0	0	0	
$1 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	2	2	2	2	2	2	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	-1	2	-1	2	-1	0	
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	1	1	1	1	1	1	1	

$$P_1 = \text{Group}([()]) \cong 1$$

$$P_2 = \text{Group}([(1, 4)(2, 7)(3, 9)(5, 11)(6, 13)(8, 15)(10, 17)(12, 19)(14, 20)(16, 22)(18, 23)(21, 24)]) \cong C2$$

$$P_3 = \text{Group}([(1, 4)(2, 7)(3, 9)(5, 11)(6, 13)(8, 15)(10, 17)(12, 19)(14, 20)(16, 22)(18, 23)(21, 24), (1, 3, 4, 9)(2, 6, 7, 13)(5, 10, 11, 17)(8, 14, 15, 20)(12, 18, 19, 23)(16, 21, 22, 24)]) \cong C4$$

$$P_4 = \text{Group}([(1, 4)(2, 7)(3, 9)(5, 11)(6, 13)(8, 15)(10, 17)(12, 19)(14, 20)(16, 22)(18, 23)(21, 24), (1, 3, 4, 9)(2, 6, 7, 13)(5, 10, 11, 17)(8, 14, 15, 20)(12, 18, 19, 23)(16, 21, 22, 24), (1, 2, 3, 6, 4, 7, 9, 13)(5, 16, 10, 21, 11, 22, 17, 24)(8, 18, 14, 19, 15, 23, 20, 12), (1, 5, 12)(2, 8, 16)(3, 10, 18)(4, 11, 19)(6, 14, 21)(7, 15, 22)(9, 17, 23)(13, 20, 24)]) \cong C8$$

$$N_1 = \text{Group}([(1, 2, 3, 6, 4, 7, 9, 13)(5, 16, 10, 21, 11, 22, 17, 24)(8, 18, 14, 19, 15, 23, 20, 12), (1, 3, 4, 9)(2, 6, 7, 13)(5, 10, 11, 17)(8, 14, 15, 20)(12, 18, 19, 23)(16, 21, 22, 24), (1, 4)(2, 7)(3, 9)(5, 11)(6, 13)(8, 15)(10, 17)(12, 19)(14, 20)(16, 22)(18, 23)(21, 24), (1, 5, 12)(2, 8, 16)(3, 10, 18)(4, 11, 19)(6, 14, 21)(7, 15, 22)(9, 17, 23)(13, 20, 24)]) \cong C3 : C8$$

$$N_2 = \text{Group}([(1, 2, 3, 6, 4, 7, 9, 13)(5, 16, 10, 21, 11, 22, 17, 24)(8, 18, 14, 19, 15, 23, 20, 12), (1, 3, 4, 9)(2, 6, 7, 13)(5, 10, 11, 17)(8, 14, 15, 20)(12, 18, 19, 23)(16, 21, 22, 24), (1, 4)(2, 7)(3, 9)(5, 11)(6, 13)(8, 15)(10, 17)(12, 19)(14, 20)(16, 22)(18, 23)(21, 24), (1, 5, 12)(2, 8, 16)(3, 10, 18)(4, 11, 19)(6, 14, 21)(7, 15, 22)(9, 17, 23)(13, 20, 24)]) \cong C3 : C8$$

$$N_3 = \text{Group}([(1, 3, 4, 9)(2, 6, 7, 13)(5, 10, 11, 17)(8, 14, 15, 20)(12, 18, 19, 23)(16, 21, 22, 24), (1, 4)(2, 7)(3, 9)(5, 11)(6, 13)(8, 15)(10, 17)(12, 19)(14, 20)(16, 22)(18, 23)(21, 24), (1, 2, 3, 6, 4, 7, 9, 13)(5, 16, 10, 21, 11, 22, 17, 24)(8, 18, 14, 19, 15, 23, 20, 12), (1, 5, 12)(2, 8, 16)(3, 10, 18)(4, 11, 19)(6, 14, 21)(7, 15, 22)(9, 17, 23)(13, 20, 24)]) \cong C3 : C8$$

$$N_4 = \text{Group}([(1, 2, 3, 6, 4, 7, 9, 13)(5, 16, 10, 21, 11, 22, 17, 24)(8, 18, 14, 19, 15, 23, 20, 12), (1, 3, 4, 9)(2, 6, 7, 13)(5, 10, 11, 17)(8, 14, 15, 20)(12, 18, 19, 23)(16, 21, 22, 24), (1, 4)(2, 7)(3, 9)(5, 11)(6, 13)(8, 15)(10, 17)(12, 19)(14, 20)(16, 22)(18, 23)(21, 24)]) \cong C8$$