

The group  $G$  is isomorphic to the group labelled by [ 240, 90 ] in the Small Groups library.  
 Ordinary character table of  $G \cong \text{SL}(2,5) : \text{C}2$ :

	1a	2a	4a	3a	6a	5a	10a	2b	8a	8b	6b	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
$\chi_3$	6	6	-2	0	0	1	1	0	0	0	0	0
$\chi_4$	4	4	0	1	1	-1	-1	2	0	0	-1	-1
$\chi_5$	4	4	0	1	1	-1	-1	-2	0	0	1	1
$\chi_6$	5	5	1	-1	-1	0	0	1	-1	-1	1	1
$\chi_7$	5	5	1	-1	-1	0	0	-1	1	1	-1	-1
$\chi_8$	4	-4	0	-2	2	-1	1	0	0	0	0	0
$\chi_9$	4	-4	0	1	-1	-1	1	0	0	0	$E(3) - E(3)^2$	$-E(3) + E(3)^2$
$\chi_{10}$	4	-4	0	1	-1	-1	1	0	0	0	$-E(3) + E(3)^2$	$E(3) - E(3)^2$
$\chi_{11}$	6	-6	0	0	0	1	-1	0	$E(8) + E(8)^3$	$-E(8) - E(8)^3$	0	0
$\chi_{12}$	6	-6	0	0	0	1	-1	0	$-E(8) - E(8)^3$	$E(8) + E(8)^3$	0	0

Trivial source character table of  $G \cong \text{SL}(2,5) : \text{C}2$  at  $p = 3$ :

Normalisers $N_i$	$N_1$							$N_2$					
	$P_1$							$P_2$					
$p$ -subgroups of $G$ up to conjugacy in $G$	1a	2b	8a	5a	10a	4a	8b	2a	1a	4a	2b	2a	2c
	$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	6	0	2	1	1	2	2	6	0	0	0	0
$0 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	6	0	-2	1	1	2	-2	6	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	6	0	0	1	1	-2	0	6	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	9	3	-1	-1	-1	1	-1	9	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	9	-3	1	-1	-1	1	1	9	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 1 \cdot \chi_9 + 1 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	12	0	0	-3	3	0	0	-12	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 1 \cdot \chi_{11} + 0 \cdot \chi_{12}$	6	0	$E(8) + E(8)^3$	1	-1	0	$-E(8) - E(8)^3$	-6	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 1 \cdot \chi_{12}$	6	0	$-E(8) - E(8)^3$	1	-1	0	$E(8) + E(8)^3$	-6	0	0	0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	1	1	1	1	1	1	1	1	1	1	1	1	1
$0 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	1	-1	-1	1	1	1	-1	1	1	1	-1	-1	1
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	4	2	0	-1	-1	0	0	4	1	-1	-1	1	1
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	4	-2	0	-1	-1	0	0	4	1	-1	1	-1	1
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 1 \cdot \chi_9 + 1 \cdot \chi_{10} + 0 \cdot \chi_{11} + 0 \cdot \chi_{12}$	8	0	0	-2	2	0	0	-8	2	0	0	0	-2

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

$$P_2 = \text{Group}([(2, 18, 17)(3, 24, 21)(4, 23, 10)(6, 15, 13)(8, 14, 31)(9, 35, 34)(11, 38, 33)(12, 22, 27)(16, 32, 26)(20, 25, 29)(28, 37, 36)(30, 39, 40)]) \cong \text{C}3$$

$$N_1 = \text{Group}([(2, 4)(3, 6)(5, 7)(8, 14)(9, 16)(10, 18)(11, 20)(12, 22)(13, 24)(15, 21)(17, 23)(25, 33)(26, 35)(28, 37)(29, 38)(30, 39)(32, 34), (1, 2, 5, 10, 19, 13, 7, 3)(4, 8, 15, 26, 24, 28, 17, 9)(6, 11, 21, 30, 18, 29, 23, 12)(14, 22, 32, 33, 37, 39, 34, 25)(16, 27, 36, 38, 35, 40, 31, 20)]) \cong \text{SL}(2,5) : \text{C}2$$

$$N_2 = \text{Group}([(2, 18, 17)(3, 24, 21)(4, 23, 10)(6, 15, 13)(8, 14, 31)(9, 35, 34)(11, 38, 33)(12, 22, 27)(16, 32, 26)(20, 25, 29)(28, 37, 36)(30, 39, 40), (1, 7)(3, 10)(4, 24)(5, 19)(8, 9)(11, 30)(14, 35)(16, 37)(20, 22)(21, 23)(25, 27)(26, 28)(31, 34)(32, 36)(38, 39), (1, 7, 19, 5)(2, 3, 13, 10)(4, 17, 24, 15)(6, 23, 18, 21)(8, 9, 28, 26)(11, 12, 29, 30)(14, 34, 37, 32)(16, 31, 35, 36)(20, 40, 38, 27)(22, 25, 39, 33)]) \cong (\text{C}6 \times \text{C}2) : \text{C}2$$