

The group G is isomorphic to the group labelled by [100, 11] in the Small Groups library.
Ordinary character table of $G \cong (C5 \times C5) : C4$:

	$1a$	$5a$	$4a$	$4b$	$2a$	$5b$	$5c$	$5d$	$5e$	$5f$
χ_1	1	1	1	1	1	1	1	1	1	1
χ_2	1	1	-1	-1	1	1	1	1	1	1
χ_3	1	1	$-E(4)$	$E(4)$	-1	1	1	1	1	1
χ_4	1	1	$E(4)$	$-E(4)$	-1	1	1	1	1	1
χ_5	4	4	0	0	0	-1	-1	-1	-1	-1
χ_6	4	-1	0	0	0	4	-1	-1	-1	-1
χ_7	4	-1	0	0	0	-1	4	-1	-1	-1
χ_8	4	-1	0	0	0	-1	-1	4	-1	-1
χ_9	4	-1	0	0	0	-1	-1	-1	-1	4
χ_{10}	4	-1	0	0	0	-1	-1	-1	4	-1

Trivial source character table of $G \cong (\text{C5} \times \text{C5}) : \text{C4}$ at $p = 5$:

Normalisers N_i	N_1				N_2				N_3				N_4				N_5				N_6				N_7				N_8			
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			
Representatives $n_j \in N_i$	1a	4a	4b	2a	1a	4a	2a	4b	1a	4a	2a	4b	1a	4a	2a	4b	1a	4a	2a	4b	1a	4a	2a	4b	1a	4a	2a	4b	1a	4a	2a	4b
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 1 \cdot \chi_9 + 1 \cdot \chi_{10}$	25	$-E(4)$	$E(4)$	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 1 \cdot \chi_9 + 1 \cdot \chi_{10}$	25	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$0 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 1 \cdot \chi_9 + 1 \cdot \chi_{10}$	25	-1	-1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 1 \cdot \chi_6 + 1 \cdot \chi_7 + 1 \cdot \chi_8 + 1 \cdot \chi_9 + 1 \cdot \chi_{10}$	25	$E(4)$	$-E(4)$	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10}$	5	1	1	1	5	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$0 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10}$	5	-1	-1	1	5	-1	1	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10}$	5	$E(4)$	$-E(4)$	-1	5	$E(4)$	-1	$-E(4)$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 1 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10}$	5	$-E(4)$	$E(4)$	-1	5	$-E(4)$	-1	$E(4)$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10}$	5	1	1	1	0	0	0	0	5	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$0 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10}$	5	-1	-1	1	0	0	0	0	5	-1	1	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10}$	5	$E(4)$	$-E(4)$	-1	0	0	0	0	5	$E(4)$	-1	$-E(4)$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 1 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10}$	5	$-E(4)$	$E(4)$	-1	0	0	0	0	5	$-E(4)$	-1	$E(4)$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10}$	5	1	1	1	0	0	0	0	0	0	0	0	5	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$0 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10}$	5	-1	-1	1	0	0	0	0	0	0	0	0	5	-1	1	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10}$	5	$E(4)$	$-E(4)$	-1	0	0	0	0	0	0	0	0	5	$E(4)$	-1	$-E(4)$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 1 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10}$	5	$-E(4)$	$E(4)$	-1	0	0	0	0	0	0	0	0	5	$-E(4)$	-1	$E(4)$	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10}$	5	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	5	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0
$0 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10}$	5	-1	-1	1	0	0	0	0	0	0	0	0	0	0	0	0	5	-1	1	-1	0	0	0	0	0	0	0	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10}$	5	$E(4)$	$-E(4)$	-1	0	0	0	0	0	0	0	0	0	0	0	0	5	$E(4)$	-1	$-E(4)$	0	0	0	0	0	0	0	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 1 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10}$	5	$-E(4)$	$E(4)$	-1	0	0	0	0	0	0	0	0	0	0	0	0	5	$-E(4)$	-1	$E(4)$	0	0	0	0	0	0	0	0	0	0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 1 \cdot \chi_{10}$	5	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1	1	1	0	0	0	0	0	0	0	0
$0 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 1 \cdot \chi_{10}$	5	-1	-1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	-1	1	-1	0	0	0	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 1 \cdot \chi_{10}$	5	$E(4)$	$-E(4)$	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	$E(4)$	-1	$-E(4)$	0	0	0	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 1 \cdot \chi_{10}$	5	$-E(4)$	$E(4)$	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	$-E(4)$	-1	$E(4)$	0	0	0	0	0	0	0	0
$1 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 1 \cdot \chi_9 + 0 \cdot \chi_{10}$	5	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1	1	1	0	0	0	0	0	0	0	0
$0 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 1 \cdot \chi_9 + 0 \cdot \chi_{10}$	5	-1	-1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	-1	1	-1	0	0	0	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 1 \cdot \chi_9 + 0 \cdot \chi_{10}$	5	$E(4)$	$-E(4)$	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	$E(4)$	-1	$-E(4)$	0	0	0	0	0	0	0	0
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 1 \cdot \chi_9 + 0 \cdot \chi_{10}$	5	$-E(4)$	$E(4)$	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	$-E(4)$	-1	$E(4)$	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	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 1 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10}$	1	$-E(4)$	$E(4)$	-1	1	$-E(4)$	-1	$E(4)$	1	$-E(4)$	-1	$E(4)$	1	$-E(4)$	-1	$E(4)$	1	$-E(4)$	-1	$E(4)$	1	$-E(4)$	-1	$E(4)$	1	$-E(4)$	-1	$E(4)$	1	$-E(4)$	-1	$E(4)$
$0 \cdot \chi_1 + 1 \cdot \chi_2 + 0 \cdot \chi_3 + 0 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10}$	1	-1	-1	1	1	-1	1	-1	1	-1	1	-1	1	-1	1	-1	1	-1	1	-1	1	-1	1	-1	1	-1	1	-1	1	-1	1	-1
$0 \cdot \chi_1 + 0 \cdot \chi_2 + 0 \cdot \chi_3 + 1 \cdot \chi_4 + 0 \cdot \chi_5 + 0 \cdot \chi_6 + 0 \cdot \chi_7 + 0 \cdot \chi_8 + 0 \cdot \chi_9 + 0 \cdot \chi_{10}$	1	$E(4)$	$-E(4)$	-1	1	$E(4)$	-1	$-E(4)$	1	$E(4)$	-1	$-E(4)$	1	$E(4)$	-1	$-E(4)$	1	$E(4)$	-1	$-E(4)$	1	$E(4)$	-1	$-E(4)$	1	$E(4)$	-1	$-E(4)$	1	$E(4)$	-1	$-E(4)$

$$\begin{aligned} P_1 &= Group([()]) \cong 1 \\ P_2 &= Group([(1, 2, 3, 4, 5)]) \cong C5 \\ P_3 &= Group([(6, 7, 8, 9, 10)]) \cong C5 \\ P_4 &= Group([(1, 2, 3, 4, 5)(6, 7, 8, 9, 10)]) \cong C5 \\ P_5 &= Group([(1, 2, 3, 4, 5)(6, 8, 10, 7, 9)]) \cong C5 \\ P_6 &= Group([(1, 2, 3, 4, 5)(6, 9, 7, 10, 8)]) \cong C5 \\ P_7 &= Group([(1, 2, 3, 4, 5)(6, 10, 9, 8, 7)]) \cong C5 \\ P_8 &= Group([(1, 2, 3, 4, 5), (6, 7, 8, 9, 10)]) \cong C5 \times C5 \end{aligned}$$

$$\begin{aligned}
N_1 &= Group[(2, 3, 5, 4)(7, 8, 10, 9), (2, 5)(3, 4)(7, 10)(8, 9), (1, 2, 3, 4, 5), (6, 7, 8, 9, 10)] \cong (C_5 \times C_5) : C_4 \\
N_2 &= Group[(2, 3, 5, 4)(7, 8, 10, 9), (2, 5)(3, 4)(7, 10)(8, 9), (1, 2, 3, 4, 5), (6, 7, 8, 9, 10)] \cong (C_5 \times C_5) : C_4 \\
N_3 &= Group[(2, 3, 5, 4)(7, 8, 10, 9), (2, 5)(3, 4)(7, 10)(8, 9), (1, 2, 3, 4, 5), (6, 7, 8, 9, 10)] \cong (C_5 \times C_5) : C_4 \\
N_4 &= Group[(2, 3, 5, 4)(7, 8, 10, 9), (2, 5)(3, 4)(7, 10)(8, 9), (1, 2, 3, 4, 5), (6, 7, 8, 9, 10)] \cong (C_5 \times C_5) : C_4 \\
N_5 &= Group[(2, 3, 5, 4)(7, 8, 10, 9), (2, 5)(3, 4)(7, 10)(8, 9), (1, 2, 3, 4, 5), (6, 7, 8, 9, 10)] \cong (C_5 \times C_5) : C_4 \\
N_6 &= Group[(2, 3, 5, 4)(7, 8, 10, 9), (2, 5)(3, 4)(7, 10)(8, 9), (1, 2, 3, 4, 5), (6, 7, 8, 9, 10)] \cong (C_5 \times C_5) : C_4 \\
N_7 &= Group[(2, 3, 5, 4)(7, 8, 10, 9), (2, 5)(3, 4)(7, 10)(8, 9), (1, 2, 3, 4, 5), (6, 7, 8, 9, 10)] \cong (C_5 \times C_5) : C_4 \\
N_8 &= Group[(2, 3, 5, 4)(7, 8, 10, 9), (2, 5)(3, 4)(7, 10)(8, 9), (1, 2, 3, 4, 5), (6, 7, 8, 9, 10)] \cong (C_5 \times C_5) : C_4
\end{aligned}$$