The group G is isomorphic to the group labelled by [672, 1045] in the Small Groups library. Ordinary character table of $G \cong C2$. (PSL(3,2):C2) = SL(2,7). C2:

	1a	2a	3a	6a	7a	14a	4a	16a	16b	12a	12b	16c	16d	4b	8a	8b
χ_1	1	1	1	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	-1	1	1	1
χ_3	6	6	0	0	-1	-1	0	0	0	0	0	0	0	-2	2	2
χ_4	6	6	0	0	-1	-1	0	$E(8) - E(8)^3$	$E(8) - E(8)^3$	0	0	$-E(8) + E(8)^3$	$-E(8) + E(8)^3$	2	0	0
χ_5	6	6	0	0	-1	-1	0	$-E(8) + E(8)^3$	$-E(8) + E(8)^3$	0	0	$E(8) - E(8)^3$	$E(8) - E(8)^3$	2	0	0
χ_6	6	-6	0	0	-1	1	0	$E(16) - E(16)^7$	$-E(16) + E(16)^7$	0	0	$-E(16)^3 + E(16)^5$	$E(16)^3 - E(16)^5$	0	$E(8) - E(8)^3$	$-E(8) + E(8)^{3}$
χ_7	6	-6	0	0	-1	1	0	$E(16)^3 - E(16)^5$	$-E(16)^3 + E(16)^5$	0	0	$E(16) - E(16)^7$	$-E(16) + E(16)^7$	0	$-E(8) + E(8)^3$	$E(8) - E(8)^3$
χ_8	6	-6	0	0	-1	1	0	$-E(16) + E(16)^7$	$E(16) - E(16)^{7}$	0	0	$E(16)^3 - E(16)^5$	$-E(16)^3 + E(16)^5$	0	$E(8) - E(8)^3$	$-E(8) + E(8)^{3}$
χ_9	6	-6	0	0	-1	1	0	$-E(16)^3 + E(16)^5$	$E(16)^3 - E(16)^5$	0	0	$-E(16) + E(16)^7$	$E(16) - E(16)^7$	0	$-E(8) + E(8)^3$	$E(8) - E(8)^3$
χ_{10}	7	7	1	1	0	0	-1	1	1	-1	-1	1	1	-1	-1	-1
χ_{11}	7	7	1	1	0	0	1	-1	-1	1	1	-1	-1	-1	-1	-1
χ_{12}	8	-8	2	-2	1	-1	0	0	0	0	0	0	0	0	0	0
χ_{13}	8	8	-1	-1	1	1	-2	0	0	1	1	0	0	0	0	0
χ_{14}	8	8	-1	-1	1	1	2	0	0	-1	-1	0	0	0	0	0
χ_{15}	8	-8	-1	1	1	-1	0	0	0	$-E(12)^7 + E(12)^{11}$	$E(12)^7 - E(12)^{11}$	0	0	0	0	0
X16	8	-8	-1	1	1	-1	0	0	0	$E(12)^7 - E(12)^{11}$	$-E(12)^7 + E(12)^{11}$	0	0	0	0	0

Trivial source character table of $G \cong C2$. (PSL(3,2): C2) = SL(2,7). C2 at p = 7:

Normalisers N_i N_2																			
				N_1										N_2					
P_1									$\overline{P_2}$										
1a $2a$ $3a$ $6a$ $4a$	16a	16b	12a	12b	16c	16d	4b $8a$	8b	1a	4a $2a$	a = 3a	4b	12b	6a	3b	12d	12a	6b	12c
14 14 -1 -1 2	$E(8) - E(8)^3$	$E(8) - E(8)^3$	-1	-1	$-E(8) + E(8)^3$	$-E(8) + E(8)^3$	2 0	0	0	0 0	0	0	0	0	0	0	0	0	0
$\begin{vmatrix} 14 & 14 & -1 & -1 & -2 \end{vmatrix}$			1	1	$E(8) - E(8)^3$	$E(8) - E(8)^3$	2 0	0	0	0 0	0	0	0	0	0	0	0	0	0
7 7 1 1 -1	$-1 + E(8) - E(8)^3$	$-1 + E(8) - E(8)^3$	-1	-1	$-1 - E(8) + E(8)^3$	$-1 - E(8) + E(8)^3$	3 1	1	0	0 0	0	0	0	0	0	0	0	0	0
7 7 1 1 1	$1 - E(8) + E(8)^3$	$1 - E(8) + E(8)^3$	1	1	$1 + E(8) - E(8)^3$	$1 + E(8) - E(8)^3$	3 1	1	0	0 0	0	0	0	0	0	0	0	0	0
7 7 1 1 -1	1	1	-1	-1	1	1	-1 -1	-1	0	0 0	0	0	0	0	0	0	0	0	0
7 7 1 1 1	-1	-1	1	1	-1	-1	-1 -1	-1	0	0 0	0	0	0	0	0	0	0	0	0
14 -14 2 -2 0	$E(16)^3 - E(16)^5$		0	0	$E(16) - E(16)^7$	$-E(16) + E(16)^7$	0 - E(8) + E(8)	$E(8) - E(8)^3$	0	0 0	0	0	0	0	0	0	0	0	0
14 -14 2 -2 0	$-E(16)^3 + E(16)^5$		0	0					0	0 0	0	0	0	0	0	0	0	0	0
14 -14 -1 1 0	$E(16) - E(16)^7$						` ,	` ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '	3 0	0 0	0	0	0	0	0	0	0	0	0
	$-E(16) + E(16)^7$					(/ /	` ,	` ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '	3 0	0 0	0	0	0	0	0	0	0	0	0
	()	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \					` ,	· · · · · · · · · · · · · · · · · · ·	0	0 0	0	0	0	0	0	0	0	0	0
14 -14 -1 1 0	$-E(16)^3 + E(16)^5$	$E(16)^3 - E(16)^5$	$E(12)^7 - E(12)^{11}$	$-E(12)^7 + E(12)^{11}$	$-E(16) + E(16)^7$	$E(16) - E(16)^7$	0 - E(8) + E(8)	$E(8) - E(8)^3$	0	0 0	0	0	0	0	0	0	0	0	0
14 14 -1 -1 -2	0	0	1	1	0	0	-2 2	2	0	0 0	0	0	0	0	0	0	0	0	0
14 14 -1 -1 2	0	0	-1	-1	0	0	-2 2	2	0	0 0	0	0	0	0	0	0	0	0	0
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	-1	-1	-1	-1	-1	1 1	1	1	-1 1	. 1	-1	-1	1	1	-1	-1	1	-1
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0	0	-1	-1	0	0	0 0	0	1	1 1	$E(3)^2$	1	$E(3)^{2}$	$E(3)^{2}$	E(3)	$E(3)^{2}$	E(3)	E(3)	E(3)
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0	0	-1	-1	0	0	0 0	0	1	1 1	E(3)	1	E(3)	E(3)	$E(3)^{2}$	E(3)	$E(3)^{2}$	$E(3)^{2}$	$E(3)^{2}$
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	0	0	1	1	0	0	0 0	0	1	-1 1	$E(3)^2$	-1	$-E(3)^2$	$E(3)^{2}$	E(3)	$-E(3)^2$	-E(3)	E(3)	-E(3)
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	0	0	1	1	0	0	0 0	0	1	-1 1	E(3)	-1	-E(3)	E(3)	$E(3)^{2}$	-E(3)	$-E(3)^2$	$E(3)^{2}$	$-E(3)^2$
$\begin{vmatrix} 8 & -8 & 2 & -2 & 0 \end{vmatrix}$	0	0	0	0	0	0	0 0	0	$\mid 1 \mid E$	E(4) -1	1 1	-E(4)	E(4)	-1	1	-E(4)	E(4)	-1	-E(4)
$\begin{vmatrix} 8 & -8 & 2 & -2 & 0 \end{vmatrix}$	0	0	0	0	0	0	0 0	0	1 -	E(4) -1	1 1	E(4)	-E(4)	-1	1	E(4)	-E(4)	-1	E(4)
$\begin{vmatrix} 8 & -8 & -1 & 1 & 0 \end{vmatrix}$	0	0			0	0	0 0	0	$\mid 1 \mid E$	E(4) -1		\ /		()	()	\ /	$E(12)^{7}$	\ /	$-E(12)^7$
$\begin{vmatrix} 8 & -8 & -1 & 1 & 0 \end{vmatrix}$	0	0			0	0	0 0	0	1 -	E(4) -1	$1 E(3)^2$			` /	\ /_	$E(12)^{11}$		-E(3)	$E(12)^{7}$
	0	0	$E(12)^7 - E(12)^{11}$		0	0	0 0	0	$\mid 1 \mid E$	E(4) -1	\ /	\ /	` ' .	` /	· / _	\ /			
8 -8 -1 1 0	0	0	$-E(12)^7 + E(12)^{11}$	$E(12)^7 - E(12)^{11}$	0	0	0 0	0	1 -	E(4) -1	1 E(3)	E(4)	$-E(12)^7$	-E(3)	$E(3)^2$	$E(12)^{7}$	$-E(12)^{11}$	$-E(3)^2$	$E(12)^{11}$
	14 14 -1 -1 2 14 14 -1 -1 -2 7 7 1 1 -1 7 7 1 1 1 7 7 1 1 1 14 -14 2 -2 0 14 -14 2 -2 0 14 -14 -1 1 0 14 -14 -1 1 0 14 -14 -1 1 0 14 14 -1 -1 -2 14 14 -1 -1 2 1 1 1 1 1	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$																

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

 $P_2 = Group([(1,31,12,10,14,15,17)(2,8,25,23,27,21,7)(3,6,26,24,28,22,5)(4,32,11,9,16,13,19)]) \cong C7$

 $N_1 = Group([(1,2,4,3)(5,9,7,10)(6,11,8,12)(13,21,15,22)(14,23,16,24)(17,25,19,26)(18,27,20,28)(29,31,30,32),(2,5,6)(3,7,8)(9,13,14)(10,15,16)(11,17,18)(12,19,20)(21,26,29)(22,25,30)]) \cong C2 \cdot (PSL(3,2) : C2) = SL(2,7) \cdot C2$

 $N_2 = Group([(1,31,12,10,14,15,17)(2,8,25,23,27,21,7)(3,6,26,24,28,22,5)(4,32,11,9,16,13,19),(2,21,27)(3,22,28)(5,6,26)(7,8,25)(9,13,19)(10,15,17)(11,32,16)(12,31,14),(1,2,4,3)(5,31,7,32)(6,17,8,19)(9,28,10,27)(11,22,12,21)(13,26,15,25)(14,23,16,24)(18,29,20,30)]) \cong C7:C12$