

# $U_3(9).4 \pmod{2}$

|       | blocks | defect | matrix                               |
|-------|--------|--------|--------------------------------------|
| $G :$ | 1      | 7      | $27 \times 3$                        |
|       | 2      | 5      | $12 \times 2$                        |
|       | 3      | 3      | $5 \times 1$                         |
|       | 4      | 0      | $3200_1 = \chi_{69+}, \varphi_{14+}$ |
|       | 5      | 0      | $3200_2 = \chi_{73+}, \varphi_{18+}$ |
|       | 6      | 0      | $3200_3 = \chi_{77+}, \varphi_{22+}$ |
|       | 7      | 0      | $3200_4 = \chi_{81+}, \varphi_{26+}$ |
|       | 8      | 0      | $3200_5 = \chi_{85+}, \varphi_{30+}$ |
|       | 9      | 0      | $3200_6 = \chi_{89+}, \varphi_{34+}$ |

| Block 1:                | $\varphi_{1,0}$ | $\varphi_{2,0}$ | $\varphi_{13,0}$ |                          |
|-------------------------|-----------------|-----------------|------------------|--------------------------|
| $1_1 = \chi_{1,0}$      | 1               | .               | .                |                          |
| $1_2 = \chi_{1,1}$      | 1               | .               | .                |                          |
| $1_3 = \chi_{1,2}$      | 1               | .               | .                |                          |
| $1_4 = \chi_{1,3}$      | 1               | .               | .                |                          |
| $72_1 = \chi_{2,0}$     | .               | 1               | .                |                          |
| $72_2 = \chi_{2,1}$     | .               | 1               | .                |                          |
| $72_3 = \chi_{2,2}$     | .               | 1               | .                |                          |
| $72_4 = \chi_{2,3}$     | .               | 1               | .                |                          |
| $73_1 = \chi_{3,0}$     | 1               | 1               | .                |                          |
| $73_2 = \chi_{3,1}$     | 1               | 1               | .                |                          |
| $73_3 = \chi_{3,2}$     | 1               | 1               | .                |                          |
| $73_4 = \chi_{3,3}$     | 1               | 1               | .                | $\varphi_{1,0} = 1_1$    |
| $657_1 = \chi_{24,0}$   | 1               | .               | 1                | $\varphi_{2,0} = 72_1$   |
| $657_2 = \chi_{24,1}$   | 1               | .               | 1                | $\varphi_{13,0} = 656_1$ |
| $657_3 = \chi_{24,2}$   | 1               | .               | 1                |                          |
| $657_4 = \chi_{24,3}$   | 1               | .               | 1                |                          |
| $729_1 = \chi_{33,0}$   | 1               | 1               | 1                |                          |
| $729_2 = \chi_{33,1}$   | 1               | 1               | 1                |                          |
| $729_3 = \chi_{33,2}$   | 1               | 1               | 1                |                          |
| $729_4 = \chi_{33,3}$   | 1               | 1               | 1                |                          |
| $730_1 = \chi_{34,0}$   | 2               | 1               | 1                |                          |
| $730_2 = \chi_{34,1}$   | 2               | 1               | 1                |                          |
| $730_3 = \chi_{34,2}$   | 2               | 1               | 1                |                          |
| $730_4 = \chi_{34,3}$   | 2               | 1               | 1                |                          |
| $1460_1 = \chi_{35,0+}$ | 4               | 2               | 2                |                          |
| $1460_2 = \chi_{35,1+}$ | 4               | 2               | 2                |                          |
| $2920_2 = \chi_{41+}$   | 8               | 4               | 4                |                          |

| Block 2:              | $\varphi_{3+}$ | $\varphi_{9+}$ |                         |  |
|-----------------------|----------------|----------------|-------------------------|--|
| $292_1 = \chi_{4+}$   | 1              | .              |                         |  |
| $292_2 = \chi_{8+}$   | 1              | .              |                         |  |
| $2336_2 = \chi_{20+}$ | .              | 1              |                         |  |
| $2628_1 = \chi_{25+}$ | 1              | 1              |                         |  |
| $2628_2 = \chi_{29+}$ | 1              | 1              | $\varphi_{3+} = 292_1$  |  |
| $2920_1 = \chi_{37+}$ | 2              | 1              | $\varphi_{9+} = 2336_1$ |  |
| $2920_3 = \chi_{45+}$ | 2              | 1              |                         |  |
| $2920_4 = \chi_{49+}$ | 2              | 1              |                         |  |
| $2920_5 = \chi_{53+}$ | 2              | 1              |                         |  |
| $2920_6 = \chi_{57+}$ | 2              | 1              |                         |  |
| $2920_7 = \chi_{61+}$ | 2              | 1              |                         |  |
| $2920_8 = \chi_{65+}$ | 2              | 1              |                         |  |

| Block 3:                | $\varphi_{7,0+}$ |                           |  |
|-------------------------|------------------|---------------------------|--|
| $1168_1 = \chi_{12,0+}$ | 1                |                           |  |
| $1168_2 = \chi_{12,1+}$ | 1                | $\varphi_{7,0+} = 1168_1$ |  |
| $1168_3 = \chi_{14,0+}$ | 1                |                           |  |
| $1168_4 = \chi_{14,1+}$ | 1                |                           |  |
| $2336_1 = \chi_{16+}$   | 2                |                           |  |