$M_{12}.2\pmod{3}$

| | blocks | defect | matrix |
|------|--------|--------|-------------------------------------|
| G: | 1 | 3 | 13×7 |
| | 2 | 1 | 3×2 |
| | 3 | 1 | 3×2 |
| | 4 | 0 | $54_1 = \chi_{7,0}, \varphi_{10,0}$ |
| | 5 | 0 | $54_2 = \chi_{7,1}, \varphi_{10,1}$ |
| 2.G: | 6 | 3 | 13×7 |

| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | | | | | | | | |
|--|----------------------|-----------------|-----------------|----------------|----------------|-----------------|-----------------|----------------|
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | Block 1: | $\varphi_{1,0}$ | $\varphi_{1,1}$ | φ_{2+} | φ_{4+} | $\varphi_{6,0}$ | $\varphi_{6,1}$ | φ_{8+} |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | $1_1 = \chi_{1,0}$ | 1 | | | | | | |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | | | 1 | | | | | |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | | 1 | 1 | 1 | | | | |
| $\begin{array}{cccccccccccccccccccccccccccccccccccc$ | $32_1 = \chi_{4+}$ | 1 | 1 | | 1 | | | |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | | 1 | | 1 | | 1 | | |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | | | 1 | 1 | | | 1 | |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | $110_1 = \chi_{9+}$ | | | 1 | | | | 1 |
| $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | $6_1 = \chi_{11,0}$ | 2 | | | 1 | 1 | | |
| $20_1 = \chi_{13,0} \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$ | | | 2 | | 1 | | 1 | |
| $0_2 = \chi_{13,1}$ | | | | | 1 | | | 1 |
| $76_1 = \chi_{15,0}$ 1 1 1 1 1 . 1 | $20_2 = \chi_{13,1}$ | | | | 1 | | | 1 |
| | $76_1 = \chi_{15,0}$ | 1 | 1 | 1 | 1 | 1 | | 1 |
| $76_2 = \chi_{15,1} \mid 1 1 1 1 1 1$ | $76_2 = \chi_{15,1}$ | 1 | 1 | 1 | 1 | | 1 | 1 |

| | Block 2: | $\varphi_{7,0}$ | $\varphi_{11,1}$ | | | |
|---|--|-----------------|------------------|------------------------------|---|----------------|
| • | $45_1 = \chi_{6,0}$ $99_2 = \chi_{12,1}$ $144_1 = \chi_{14,0}$ | 1 | . 1 | $arphi_{7,0} \ arphi_{11,1}$ | = | $45_1 \\ 99_2$ |
| | $144_1 = \chi_{14,0}$ | 1 | 1 | | | |

| Block 3: | $\varphi_{7,1}$ | $\varphi_{11,0}$ | | |
|--|-----------------|------------------|------------------------------|----------------|
| $45_2 = \chi_{6,1}$ $99_1 = \chi_{12,0}$ $144_2 = \chi_{14,1}$ | 1 | · 1 | $arphi_{7,1} \ arphi_{11,0}$ | $45_2 \\ 99_1$ |
| $144_2 = \chi_{14,1}$ | 1 | 1 | | |

| Block 6: | φ_{12+} | $\varphi_{14,0}$ | $\varphi_{14,1}$ | $\varphi_{15,0}$ | $\varphi_{15,1}$ | φ_{16+} | φ_{18+} |
|-----------------------|-----------------|------------------|------------------|------------------|------------------|-----------------|-----------------|
| $10_1 = \chi_{16,0}$ | | 1 | | | | | |
| $10_2 = \chi_{16,1}$ | | | 1 | | | | |
| $10_3 = \chi_{17,0}$ | | | | 1 | | | |
| $10_4 = \chi_{17,1}$ | | | • | | 1 | | |
| $12_1 = \chi_{18,0}$ | 1 | | | | • | | |
| $12_2 = \chi_{18,1}$ | 1 | | | | • | | |
| $32_2 = \chi_{19,0}$ | 1 | 1 | | | 1 | | |
| $32_3 = \chi_{19,1}$ | 1 | | 1 | 1 | • | | |
| $88_1 = \chi_{20+}$ | | | • | | • | 1 | |
| $220_1 = \chi_{22+}$ | 1 | 1 | 1 | 1 | 1 | | 1 |
| $120_3 = \chi_{24,0}$ | 1 | 1 | • | 1 | • | 1 | |
| $120_4 = \chi_{24,1}$ | 1 | | 1 | | 1 | 1 | |
| $320_1 = \chi_{25+}$ | 2 | 1 | 1 | 1 | 1 | 1 | 1 |

 $\begin{array}{rcl} \varphi_{12+} & = & 12_1 \\ \varphi_{14,0} & = & 10_1 \\ \varphi_{14,1} & = & 10_2 \\ \varphi_{15,0} & = & 10_3 \\ \varphi_{15,1} & = & 10_4 \\ \varphi_{16+} & = & 88_1 \\ \varphi_{18+} & = & 168_1 \end{array}$