

The 24 orthogonal automorphic representations of level 1 and trivial coefficient

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$$\begin{array}{ll}
 [23] \oplus [1], & \text{Sym}^2\Delta \oplus \Delta_{20}[2] \oplus \Delta_{16}[2] \oplus \Delta[2] \oplus [9], \\
 \text{Sym}^2\Delta \oplus [21], & \text{Sym}^2\Delta \oplus \Delta_{18}[4] \oplus \Delta[2] \oplus [9], \\
 \Delta_{22}[2] \oplus [1] \oplus [19], & \text{Sym}^2\Delta \oplus \Delta_{16}[6] \oplus [9], \\
 \text{Sym}^2\Delta \oplus \Delta_{20}[2] \oplus [17], & \Delta_{16}[8] \oplus [1] \oplus [7], \\
 \Delta_{22}[2] \oplus \Delta_{18}[2] \oplus [1] \oplus [15], & \Delta_{22}[2] \oplus \Delta_{18}[2] \oplus \Delta[4] \oplus [1] \oplus [7], \\
 \Delta_{20}[4] \oplus [1] \oplus [15], & \Delta_{20}[4] \oplus \Delta[4] \oplus [1] \oplus [7], \\
 \text{Sym}^2\Delta \oplus \Delta_{20}[2] \oplus \Delta_{16}[2] \oplus [13], & \Delta_{8,8}[2] \oplus \Delta_{16}[4] \oplus [1] \oplus [7], \\
 \text{Sym}^2\Delta \oplus \Delta_{18}[4] \oplus [13], & \text{Sym}^2\Delta \oplus \Delta_{20}[2] \oplus \Delta[6] \oplus [5], \\
 \Delta_{18}[6] \oplus [1] \oplus [11], & \text{Sym}^2\Delta \oplus \Delta_{6,8}[2] \oplus \Delta_{16}[2] \oplus \Delta[2] \oplus [5], \\
 \Delta_{22}[2] \oplus \Delta_{16}[4] \oplus [1] \oplus [11], & \Delta_{22}[2] \oplus \Delta[8] \oplus [1] \oplus [3], \\
 \Delta_{12,6}[2] \oplus \Delta_{18}[2] \oplus [1] \oplus [11], & \Delta_{4,10}[2] \oplus \Delta_{18}[2] \oplus \Delta[4] \oplus [1] \oplus [3], \\
 & \text{Sym}^2\Delta \oplus \Delta[10] \oplus [1], \\
 & \Delta[12].
 \end{array}$$