Character Tables of Multiplicity-Free Endomorphism Rings

$G = 6.M_{22}.2$ (no. 4)

$H = 2^3 : L_3(2) \times 2 \to (M_{22}.2, 11)$

rank: 12

degree: 1980

	O_1	O_2	O_3	O_4	O_5	O_6	O_7	O_8	O_9	O_{10}
$1a^+$	1	1	2	2	14	28	84	168	336	336
$21a^+$	1	1	2	2	-8	-16	18	36	-60	72
$55a^+$	1	1	2	2	8	16	18	36	-12	-24
$99a^+$	1	1	2	2	-6	-12	4	8	16	-24
$154a^+$	1	1	2	2	2	4	-12	-24	0	12
$120a^+$	1	-1	-2	2	0	0	0	0	0	42
$210b^+$	1	-1	-2	2	0	0	0	0	0	-24
$21bc$	1	1	-1	-1	10	-10	36	-36	48	0
$99bc$	1	1	-1	-1	0	0	-14	14	28	0
$105ad$	1	1	-1	-1	-1-r33	1+r33	3+r33	-3-r33	-18+2r33	0
$105bc$	1	1	-1	-1	-1+r33	1-r33	3-r33	-3+r33	-18-2r33	0
$330de$	1	-1	1	-1	0	0	0	0	0	0

	O_{11}	O_{12}
$1a^+$	336	672
$21a^+$	72	-120
$55a^+$	-24	-24
$99a^+$	-24	32
$154a^+$	12	0
$120a^+$	-42	0
$210b^+$	24	0
$21bc$	0	-48
$99bc$	0	-28
$105ad$	0	18-2r33
$105bc$	0	18+2r33
$330de$	0	0

r33 = $Sqrt(33)$

References

[Mül08] J. Müller. On the multiplicity-free actions of the sporadic simple groups. *J. Algebra*, 320:910–926, 2008.