

Character Tables of Multiplicity-Free Endomorphism Rings

$G = (2.M_{22}.2)^*$ (no. 2)

$H = 2^3 : L_3(2) \rightarrow (M_{22}.2, 12)$

rank: 14

degree: 1320

	O_1	O_2	O_3	O_4	O_5	O_6	O_7	O_8	O_9	O_{10}	O_{11}	O_{12}	O_{13}
$1a^+$	1	1	1	1	14	14	84	84	112	112	112	112	336
$1a^-$	1	1	-1	-1	14	-14	84	-84	112	112	-112	-112	-336
$21a^+$	1	1	1	1	-8	-8	18	18	24	24	24	24	-60
$21a^-$	1	1	-1	-1	-8	8	18	-18	24	24	-24	-24	60
$55a^+$	1	1	1	1	8	8	18	18	-8	-8	-8	-8	-12
$55a^-$	1	1	-1	-1	8	-8	18	-18	-8	-8	8	8	12
$99a^+$	1	1	1	1	-6	-6	4	4	-8	-8	-8	-8	16
$99a^-$	1	1	-1	-1	-6	6	4	-4	-8	-8	8	8	-16
$154a^+$	1	1	1	1	2	2	-12	-12	4	4	4	4	0
$154a^-$	1	1	-1	-1	2	-2	-12	12	4	4	-4	-4	0
$120a^+$	1	-1	i	-i	0	0	0	0	14	-14	14i	-14i	0
$120a^-$	1	-1	-i	i	0	0	0	0	14	-14	-14i	14i	0
$210b^+$	1	-1	i	-i	0	0	0	0	-8	8	-8i	8i	0
$210b^-$	1	-1	-i	i	0	0	0	0	-8	8	8i	-8i	0

	O_{14}
$1a^+$	336
$1a^-$	336
$21a^+$	-60
$21a^-$	-60
$55a^+$	-12
$55a^-$	-12
$99a^+$	16
$99a^-$	16
$154a^+$	0
$154a^-$	0
$120a^+$	0
$120a^-$	0
$210b^+$	0
$210b^-$	0

i = $Sqrt(-1)$

References

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