

Character Tables of Multiplicity-Free Endomorphism Rings

$$G = 2.M_{22}.2 \text{ (no. 3)}$$

$$H = A_7 \rightarrow (M_{22}.2, 7)$$

rank: 10

degree: 704

	O_1	O_2	O_3	O_4	O_5	O_6	O_7	O_8	O_9	O_{10}
$1a^+$	1	1	15	15	35	35	105	105	140	252
$1a^-$	1	1	-15	-15	-35	-35	105	105	140	-252
$21a^+$	1	1	-7	-7	13	13	17	17	-36	-12
$21a^-$	1	1	7	7	-13	-13	17	17	-36	12
$154a^+$	1	1	3	3	3	3	-3	-3	4	-12
$154a^-$	1	1	-3	-3	-3	-3	-3	-3	4	12
$56a^+$	1	-1	3r5	-3r5	r5	-r5	-15	15	0	0
$56a^-$	1	-1	-3r5	3r5	-r5	r5	-15	15	0	0
$120a^+$	1	-1	1	-1	-7	7	7	-7	0	0
$120a^-$	1	-1	-1	1	7	-7	7	-7	0	0

$$r5 = Sqrt(5)$$

References

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