

Character Tables of Multiplicity-Free Endomorphism Rings

$G = M_{12}.2$ (no. 7)

$H = 3^2 : 2.A_4 < 3^2.2.S_4$

rank: 14

degree: 880

	O_1	O_2	O_3	O_4	O_5	O_6	O_7	O_8	O_9	O_{10}	O_{11}	O_{12}
$1a^+$	1	1	8	24	27	27	36	36	72	72	72	72
$1a^-$	1	1	-8	24	27	27	-36	-36	72	72	-72	-72
$11ab$	1	1	0	-8	15	15	0	0	-24	-24	0	0
$45a^+$	1	-1	0	0	3	-3	12	-12	16	-16	8	-8
$45a^-$	1	-1	0	0	3	-3	-12	12	16	-16	-8	8
$54a^+$	1	1	-2r5	2	5	5	2r5	2r5	6	6	4r5	4r5
$54a^-$	1	1	2r5	2	5	5	-2r5	-2r5	6	6	-4r5	-4r5
$55a^+$	1	1	6	10	-3	-3	6	6	-6	-6	0	0
$55a^-$	1	1	-6	10	-3	-3	-6	-6	-6	-6	0	0
$55bc$	1	-1	0	0	-9	9	0	0	0	0	0	0
$99a^+$	1	1	2	-6	-3	-3	-6	-6	2	2	8	8
$99a^-$	1	1	-2	-6	-3	-3	6	6	2	2	-8	-8
$120a^+$	1	-1	0	0	3	-3	2r3	-2r3	-6	6	-6r3	6r3
$120a^-$	1	-1	0	0	3	-3	-2r3	2r3	-6	6	6r3	-6r3

	O_{13}	O_{14}
$1a^+$	216	216
$1a^-$	-216	216
$11ab$	0	24
$45a^+$	0	0
$45a^-$	0	0
$54a^+$	-10r5	-26
$54a^-$	10r5	-26
$55a^+$	-18	6
$55a^-$	18	6
$55bc$	0	0
$99a^+$	-6	6
$99a^-$	6	6
$120a^+$	0	0
$120a^-$	0	0

r3 = $Sqrt(3)$

r5 = $Sqrt(5)$

References

- [Höh01] I. Höhler. Vielfachheitsfreie Permutationsdarstellungen und die Invarianten zugehöriger Graphen. Examensarbeit, RWTH Aachen, 2001.