

Character Tables of Multiplicity-Free Endomorphism Rings

$G = 2.Fi_{22}.2$ (no. 5)

$H = {}^2F_4(2)'.2 \rightarrow (Fi_{22}.2, 16)$

rank: 13

degree: 7185024

	O_1	O_2	O_3	O_4	O_5	O_6	O_7	O_8
$1a^+$	1	1	3510	23400	29952	166400	166400	280800
$1001a^+$	1	1	-810	1800	-1152	-6400	-6400	-21600
$1430a^+$	1	1	-378	3960	-1152	10880	10880	8640
$13650a^+$	1	1	342	1224	-1728	1664	1664	2016
$30030a^+$	1	1	198	1080	1152	-640	-640	-2880
$289575a^-$	1	1	150	-120	384	-256	-256	1248
$400400ab$	1	1	54	72	-288	-352	-352	0
$579150a^+$	1	1	-42	264	192	128	128	-96
$675675a^-$	1	1	54	-216	0	512	512	-864
$1201200a^-$	1	1	-90	-72	0	-64	-64	288
$133056a^+$	1	-1	0	0	0	800+720r3	-800-720r3	0
$133056a^-$	1	-1	0	0	0	800-720r3	-800+720r3	0
$1663200ab$	1	-1	0	0	0	-64	64	0

	O_9	O_{10}	O_{11}	O_{12}	O_{13}
$1a^+$	374400	374400	374400	898560	4492800
$1001a^+$	28800	-14400	-14400	34560	0
$1430a^+$	-14400	-14400	-14400	27648	-17280
$13650a^+$	6912	3744	3744	-1152	-18432
$30030a^+$	-2880	2880	2880	4608	-5760
$289575a^-$	768	-576	-576	768	-1536
$400400ab$	-576	-144	-144	0	1728
$579150a^+$	384	-288	-288	-1920	1536
$675675a^-$	0	0	0	0	0
$1201200a^-$	0	288	288	576	-1152
$133056a^+$	0	1800-720r3	-1800+720r3	0	0
$133056a^-$	0	1800+720r3	-1800-720r3	0	0
$1663200ab$	0	-144	144	0	0

r3 = $Sqrt(3)$

References

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