

Character Tables of Multiplicity-Free Endomorphism Rings

$G = 3.Fi_{22}.2$ (no. 7)

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

rank: 17

degree: 10777536

	O_1	O_2	O_3	O_4	O_5	O_6	O_7	O_8	O_9
$1a^+$	1	2	1755	3510	11700	23400	44928	140400	187200
$1001a^+$	1	2	-405	-810	900	1800	-1728	-10800	14400
$1430a^+$	1	2	-189	-378	1980	3960	-1728	4320	-7200
$13650a^+$	1	2	171	342	612	1224	-2592	1008	3456
$30030a^+$	1	2	99	198	540	1080	1728	-1440	-1440
$289575a^-$	1	2	75	150	-60	-120	576	624	384
$400400ab$	1	2	27	54	36	72	-432	0	-288
$579150a^+$	1	2	-21	-42	132	264	288	-48	192
$675675a^-$	1	2	27	54	-108	-216	0	-432	0
$1201200a^-$	1	2	-45	-90	-36	-72	0	144	0
$19305ab$	1	-1	219	-219	180	-180	0	-1680	2880
$27027ab$	1	-1	75	-75	900	-900	0	1200	0
$51975ab$	1	-1	-117	117	-156	156	0	1872	2496
$386100ab$	1	-1	51	-51	12	-12	0	672	-480
$405405ab$	1	-1	-69	69	180	-180	0	-240	0
$1351350ef$	1	-1	-21	21	-60	60	0	-48	-192
$1351350gh$	1	-1	27	-27	-12	12	0	-144	192

	O_{10}	O_{11}	O_{12}	O_{13}	O_{14}	O_{15}	O_{16}
$1a^+$	280800	374400	449280	499200	898560	1123200	2246400
$1001a^+$	-21600	28800	17280	-19200	34560	-43200	0
$1430a^+$	8640	-14400	13824	32640	27648	-43200	-8640
$13650a^+$	2016	6912	-576	4992	-1152	11232	-9216
$30030a^+$	-2880	-2880	2304	-1920	4608	8640	-2880
$289575a^-$	1248	768	384	-768	768	-1728	-768
$400400ab$	0	-576	0	-1056	0	-432	864
$579150a^+$	-96	384	-960	384	-1920	-864	768
$675675a^-$	-864	0	0	1536	0	0	0
$1201200a^-$	288	0	288	-192	576	864	-576
$19305ab$	1680	-2880	6144	0	-6144	0	3840
$27027ab$	-1200	0	-1920	0	1920	0	9600
$51975ab$	-1872	-2496	0	0	0	0	0
$386100ab$	-672	480	768	0	-768	0	-1536
$405405ab$	240	0	384	0	-384	0	-1920
$1351350ef$	48	192	192	0	-192	0	1344
$1351350gh$	144	-192	-576	0	576	0	-576

	O_{17}
$1a^+$	4492800
$1001a^+$	0
$1430a^+$	-17280
$13650a^+$	-18432
$30030a^+$	-5760
$289575a^-$	-1536
$400400ab$	1728
$579150a^+$	1536
$675675a^-$	0
$1201200a^-$	-1152
$19305ab$	-3840
$27027ab$	-9600
$51975ab$	0
$386100ab$	1536
$405405ab$	1920
$1351350ef$	-1344
$1351350gh$	576

References

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