$S_6(3) \pmod 7$

	blocks	defect	matrix
$G:$	1	1	7×6
	2	1	7×6
	3	0	$91_1 = \chi_5, \varphi_5$
	$4 = \overline{3}$	0	$91_2 = \chi_6, \varphi_6$
	5	0	$105_1 = \chi_7, \varphi_7$
	6	0	$168_1 = \chi_8, \varphi_8$
	7	0	$273_1 = \chi_{10}, \varphi_{10}$
	$8 = \overline{7}$	0	$273_2 = \chi_{11}, \varphi_{11}$
	9	0	$455_1 = \chi_{12}, \varphi_{12}$
	$10 = \overline{9}$	0	$455_2 = \chi_{13}, \varphi_{13}$
	11	0	$546_1 = \chi_{14}, \varphi_{14}$
	$12 = \overline{11}$	0	$546_2 = \chi_{15}, \varphi_{15}$
	13	0	$728_1 = \chi_{16}, \varphi_{16}$
	$14 = \overline{13}$	0	$728_2 = \chi_{17}, \varphi_{17}$
	15	0	$819_1 = \chi_{18}, \varphi_{18}$
	16	0	$1365_1 = \chi_{21}, \varphi_{21}$
	$17 = \overline{16}$	0	$1365_2 = \chi_{22}, \varphi_{22}$
	18	0	$1365_3 = \chi_{23}, \varphi_{23}$
	$19 = \overline{18}$	0	$1365_4 = \chi_{24}, \varphi_{24}$
	20	0	$1365_5 = \chi_{25}, \varphi_{25}$
	$21 = \overline{20}$	0	$1365_6 = \chi_{26}, \varphi_{26}$
	22	0	$1820_1 = \chi_{27}, \varphi_{27}$
	23	0	$1820_2 = \chi_{28}, \varphi_{28}$
	$24 = \overline{23}$	0	$1820_3 = \chi_{29}, \varphi_{29}$
	25	0	$2184_1 = \chi_{31}, \varphi_{31}$
	$26 = \overline{25}$	0	$2184_2 = \chi_{32}, \varphi_{32}$
	27	0	$2457_1 = \chi_{33}, \varphi_{33}$
	28	0	$2457_2 = \chi_{34}, \varphi_{34}$
	$29 = \overline{28}$	0	$2457_3 = \chi_{35}, \varphi_{35}$
	30	0	$2730_1 = \chi_{36}, \varphi_{36}$
	31	0	$2835_1 = \chi_{37}, \varphi_{37}$
	32	0	$3640_1 = \chi_{38}, \varphi_{38}$
	$33 = \overline{32}$	0	$3640_2 = \chi_{39}, \varphi_{39}$
	34	0	$4095_1 = \chi_{40}, \varphi_{40}$
	$35 = \overline{34}$	0	$4095_2 = \chi_{41}, \varphi_{41}$
	36	0	$4536_1 = \chi_{42}, \varphi_{42}$
	37	0	$5460_1 = \chi_{44}, \varphi_{44}$
	38	0	$5460_2 = \chi_{45}, \varphi_{45}$
	39	0	$5460_3 = \chi_{46}, \varphi_{46}$
	$40 = \overline{39}$	0	$5460_4 = \chi_{47}, \varphi_{47}$

	blocks	defect	matrix
	41	0	$5824_1 = \chi_{48}, \varphi_{48}$
	42	0	$5824_2 = \chi_{49}, \varphi_{49}$
	$43 = \overline{42}$	0	$5824_3 = \chi_{50}, \varphi_{50}$
	44	0	$6552_1 = \chi_{51}, \varphi_{51}$
	$45 = \overline{44}$	0	$6552_2 = \chi_{52}, \varphi_{52}$
	46	0	$7371_1 = \chi_{53}, \varphi_{53}$
	$47 = \overline{46}$	0	$7371_2 = \chi_{54}, \varphi_{54}$
	48	0	$8190_1 = \chi_{55}, \varphi_{55}$
	49	0	$10920_1 = \chi_{58}, \varphi_{58}$
	$50 = \overline{49}$	0	$10920_2 = \chi_{59}, \varphi_{59}$
	51	0	$11648_1 = \chi_{60}, \varphi_{60}$
	52	0	$11648_2 = \chi_{61}, \varphi_{61}$
	$53 = \overline{52}$	0	$11648_3 = \chi_{62}, \varphi_{62}$
	54	0	$12285_1 = \chi_{63}, \varphi_{63}$
	$55 = \overline{54}$	0	$12285_2 = \chi_{64}, \varphi_{64}$
	56	0	$14560_1 = \chi_{65}, \varphi_{65}$
	57	0	$14560_2 = \chi_{66}, \varphi_{66}$
	$58 = \overline{57}$	0	$14560_3 = \chi_{67}, \varphi_{67}$
	59	0	$16380_1 = \chi_{68}, \varphi_{69}$
	60	0	$17472_1 = \chi_{71}, \varphi_{70}$
	61	0	$17920_1 = \chi_{72}, \varphi_{71}$
	62	0	$17920_2 = \chi_{73}, \varphi_{72}$
$2.G:$	63	0	$14_1 = \chi_{75}, \varphi_{73}$
	$64 = \overline{63}$	0	$14_2 = \chi_{76}, \varphi_{74}$
	65	0	$182_1 = \chi_{77}, \varphi_{75}$
	66	0	$182_2 = \chi_{78}, \varphi_{76}$
	$67 = \overline{66}$	0	$182_3 = \chi_{79}, \varphi_{77}$
	68	0	$364_1 = \chi_{80}, \varphi_{78}$
	$69 = \overline{68}$	0	$364_2 = \chi_{81}, \varphi_{79}$
	70	1	5×3
	71	0	$546_3 = \chi_{83}, \varphi_{81}$
	$72 = \overline{71}$	0	$546_4 = \chi_{84}, \varphi_{82}$
	73	0	$910_1 = \chi_{85}, \varphi_{83}$
	$74 = \overline{73}$	0	$910_2 = \chi_{86}, \varphi_{84}$
	75	0	$1092_1 = \chi_{87}, \varphi_{85}$
	76	0	$1092_2 = \chi_{88}, \varphi_{86}$
	$77 = \overline{76}$	0	$1092_3 = \chi_{89}, \varphi_{87}$
	78	0	$1092_4 = \chi_{90}, \varphi_{88}$
	$79 = \overline{78}$	0	$1092_5 = \chi_{91}, \varphi_{89}$
	80	0	$1260_1 = \chi_{92}, \varphi_{90}$

	blocks	defect	matrix
	$81 = \overline{80}$	0	$1260_2 = \chi_{93}, \varphi_{91}$
	82	0	$1820_4 = \chi_{94}, \varphi_{92}$
	$83 = \overline{82}$	0	$1820_5 = \chi_{95}, \varphi_{93}$
	84	0	$2730_2 = \chi_{96}, \varphi_{94}$
	85	0	$2730_3 = \chi_{97}, \varphi_{95}$
	86	0	$2730_4 = \chi_{98}, \varphi_{96}$
	$87 = \overline{86}$	0	$2730_5 = \chi_{99}, \varphi_{97}$
	88	0	$2730_6 = \chi_{100}, \varphi_{98}$
	$89 = \overline{88}$	0	$2730_7 = \chi_{101}, \varphi_{99}$
	90	0	$3276_1 = \chi_{103}, \varphi_{101}$
	$91 = \overline{90}$	0	$3276_2 = \chi_{104}, \varphi_{102}$
	92	0	$3640_3 = \chi_{105}, \varphi_{103}$
	$93 = \overline{92}$	0	$3640_4 = \chi_{106}, \varphi_{104}$
	94	0	$4368_1 = \chi_{107}, \varphi_{105}$
	95	0	$4368_2 = \chi_{108}, \varphi_{106}$
	$96 = \overline{95}$	0	$4368_3 = \chi_{109}, \varphi_{107}$
	97	0	$4914_1 = \chi_{110}, \varphi_{108}$
	$98 = \overline{97}$	0	$4914_2 = \chi_{111}, \varphi_{109}$
	99	0	$5460_5 = \chi_{112}, \varphi_{110}$
	100	0	$5460_6 = \chi_{113}, \varphi_{111}$
	$101 = \overline{100}$	0	$5460_7 = \chi_{114}, \varphi_{112}$
	102	0	$5824_4 = \chi_{115}, \varphi_{113}$
	103	0	$5824_5 = \chi_{116}, \varphi_{114}$
	$104 = \overline{103}$	0	$5824_6 = \chi_{117}, \varphi_{115}$
	105	0	$7280_1 = \chi_{118}, \varphi_{116}$
	106	0	$7280_2 = \chi_{119}, \varphi_{117}$
	$107 = \overline{106}$	0	$7280_3 = \chi_{120}, \varphi_{118}$
	108	0	$8190_2 = \chi_{121}, \varphi_{119}$
	$109 = \overline{108}$	0	$8190_3 = \chi_{122}, \varphi_{120}$
	110	0	$9828_1 = \chi_{123}, \varphi_{121}$
	$111 = \overline{110}$	0	$9828_2 = \chi_{124}, \varphi_{122}$
	112	0	$10206_1 = \chi_{125}, \varphi_{123}$
	$113 = \overline{112}$	0	$10206_2 = \chi_{126}, \varphi_{124}$
	114	0	$10920_3 = \chi_{127}, \varphi_{125}$
	$115 = \overline{114}$	0	$10920_4 = \chi_{128}, \varphi_{126}$
	116	0	$11648_4 = \chi_{129}, \varphi_{127}$
	117	0	$11648_5 = \chi_{130}, \varphi_{128}$
	$118 = \overline{117}$	0	$11648_6 = \chi_{131}, \varphi_{129}$
	119	0	$14742_1 = \chi_{133}, \varphi_{131}$
	120	0	$14742_2 = \chi_{134}, \varphi_{132}$

	blocks	defect	matrix
	$121 = \overline{120}$	0	$14742_3 = \chi_{135}, \varphi_{133}$
	122	0	$17472_2 = \chi_{138}, \varphi_{134}$
	123	0	$17920_3 = \chi_{139}, \varphi_{135}$
	124	0	$17920_4 = \chi_{140}, \varphi_{136}$
	125	0	$21840_1 = \chi_{141}, \varphi_{137}$

Block 1:	φ_1	φ_4	φ_9	φ_{30}	φ_{43}	φ_{68}
$1_1 = \chi_1$	1	.	.	.	.	.
$78_1 = \chi_4$	.	1	.	.	.	.
$195_1 = \chi_9$	1	.	1	.	.	.
$2106_1 = \chi_{30}$	.	1	.	1	.	.
$5265_1 = \chi_{43}$	.	.	1	.	1	.
$16640_2 = \chi_{70}$	.	.	.	1	.	1
$19683_1 = \chi_{74}$	.	.	.	.	1	1

$\varphi_1 = 1_1$
$\varphi_4 = 78_1$
$\varphi_9 = 194_1$
$\varphi_{30} = 2028_1$
$\varphi_{43} = 5071_1$
$\varphi_{68} = 14612_1$

Block 2:	φ_2	φ_3	φ_{19}	φ_{20}	φ_{56}	φ_{57}
$13_1 = \chi_2$	1	.	.	.	.	.
$13_2 = \chi_3$	.	1	.	.	.	.
$1170_1 = \chi_{19}$	.	1	.	1	.	.
$1170_2 = \chi_{20}$	1	.	1	.	.	.
$9477_1 = \chi_{56}$	.	.	.	1	1	.
$9477_2 = \chi_{57}$	.	.	1	.	.	1
$16640_1 = \chi_{69}$	.	.	.	.	1	1

$\varphi_2 = 13_1$
$\varphi_3 = 13_2$
$\varphi_{19} = 1157_1$
$\varphi_{20} = 1157_2$
$\varphi_{56} = 8320_1$
$\varphi_{57} = 8320_2$

Block 70:	φ_{80}	φ_{100}	φ_{130}
$520_1 = \chi_{82}$	1	.	.
$3120_1 = \chi_{102}$	.	1	.
$14040_1 = \chi_{132}$	1	.	1
$16640_3 = \chi_{136}$	.	1	1
$16640_4 = \chi_{137}$	.	1	1

$\varphi_{80} = 520_1$
$\varphi_{100} = 3120_1$
$\varphi_{130} = 13520_1$