

THE SUBGROUP LATTICE OF $L_3(4) : 2^2$

THOMAS CONNOR AND DIMITRI LEEMANS

Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
1	$L_3(4) : 2^2$	80640	1	2, 3, 4, 7 (56), 9 (105), 14 (120), 25 (280), 27 (336)	
2	$L_3(4) : 2$	40320	1	5, 10 (112), 11 (56), 15 (105), 20 (240), 21 (120), 34 (280), 48 (336)	1
3	$L_3(4) : 2$	40320	1	5, 12 (56), 16 (105), 22 (120), 35 (280), 49 (336)	1
4	$L_3(4) : 2$	40320	1	5, 6 (42), 13 (56), 23 (120), 36 (280)	1
5	$L_3(4)$	20160	1	8 (42), 18 (112), 19 (56), 31 (240), 32 (120), 61 (280)	2, 3, 4
6	$2^4 : A_5 : 2$	1920	42	8, 17 (5), 24 (6), 28 (10), 50 (16), 51 (16)	4
7	$A_6 : 2 : 2$	1440	56	11, 12, 13, 37 (10), 100 (36), 110 (45)	1
8	$2^4 : A_5$	960	42	29 (5), 33 (6), 52 (10), 89 (16), 90 (16), 91 (32)	5, 6
9	$2 \times 8 \cdot 2 : 2 : 2 : S_3$	768	105	16, 17, 15, 26 (3), 30 (4)	1
10	M_{10}	720	112	18, 62 (10), 157 (36), 165 (45)	2
11	M_{10}	720	56	19, 63 (10), 157 (36), 166 (45)	2, 7
12	$A_6 : 2$	720	56	19, 64 (10), 158 (36), 167 (45)	3, 7
13	$A_6 : 2$	720	56	19, 51 (12), 65 (10), 92 (30)	4, 7
14	$L_2(7) : 2 \times 2$	672	120	21, 22, 23, 59 (8), 111 (21), 148 (28)	1

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Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
15	$2 \times 4 : 2 : 2 : 2 : S_3$	384	105	29, 41 (3), 53 (8), 54 (4)	2, 9
16	$2 \times 4 : 2 : 2 : 2 : 3 : 2$	384	105	29, 42, 55 (4)	3, 9
17	$2 \times 4 : 2 : 2 : 2 : S_3$	384	105	29, 43 (3), 56 (8), 57 (4)	6 (2), 9
18	A_6	360	112	91 (12), 101 (10), 149 (30)	5, 10
19	A_6	360	56	90 (12), 102 (10), 150 (30)	5, 11, 12, 13
20	$L_2(7) : 2$	336	240	31, 97 (8), 168 (21), 217 (28)	2
21	$L_2(7) : 2$	336	120	32, 97 (8), 169 (21), 217 (28)	2, 14
22	$L_2(7) : 2$	336	120	32, 98 (8), 170 (21), 218 (28)	3, 14
23	$L_2(7) \times 2$	336	120	32, 92 (14), 99 (8)	4, 14
24	$2^4 : 5 : 2 \cdot 2$	320	252	33, 72 (5), 159 (16)	6
25	$3 : S_3 \cdot 2 \cdot 2 \times 2 : 2$	288	280	34, 38, 37, 39, 35, 36, 40, 112 (9)	1
26	$2^{1+4} \cdot D_8$	256	315	43, 44, 41, 45, 42, 46, 47	9
27	$S_5 \times 2$	240	336	50, 48, 49, 93 (5), 100 (6), 148 (10)	1
28	$D_8 \times 2 : 2 : S_3$	192	420	58, 56, 52, 73 (3), 92 (4)	6
29	$4^2 : 2 : 2 : 3$	192	105	74, 94 (8), 95 (8), 96 (4)	8 (2), 15, 16, 17
30	$D_8 \times 2 : 2 : S_3$	192	420	55, 57, 54, 75 (3), 93 (4)	9
31	$L_2(7)$	168	240	149 (14), 156 (8)	5, 20
32	$L_2(7)$	168	120	150 (14), 156 (8)	5, 21, 22, 23
33	$2^4 : 5 : 2$	160	252	60, 113 (5), 227 (16)	8, 24
34	$3 : S_3 \cdot 2 \times 2 \cdot 2$	144	280	66 (2), 63, 67, 62 (2), 61, 171 (9)	2, 25
35	$M_9 : 2$	144	280	64, 61, 68, 172 (9)	3, 25
36	$3 : S_3 \cdot 2 \cdot 2 : 2$	144	280	61, 69, 65, 173 (9)	4, 25
37	$3 : S_3 \cdot 2 \cdot 2 : 2$	144	280	63, 64, 65, 174 (9)	7 (2), 25
38	$3 : S_3 \cdot 2 \cdot 2 \times 2$	144	280	64, 69, 67, 175 (9)	25
39	$D_{12} \times S_3 : 2$	144	280	70 (2), 67, 71 (2), 65, 68, 176 (9)	25
40	$3 : S_3 \cdot 2 \cdot 2 : 2$	144	280	63, 69, 68, 177 (9)	25
41	$2^{1+4} : 2^2$	128	315	74, 76, 77 (2), 78 (2), 79	15, 26

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Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
42	$2 \times 8 \cdot 2 : 2 : 2$	128	105	74, 80 (3), 81 (3)	16, 26 (3)
43	$2^{1+4} \cdot 2^2$	128	315	73 (2), 72 (2), 74, 82, 83	17, 26
44	$2^{1+4} \cdot 4$	128	315	83, 79, 80	26
45	$2^{1+4} : 4$	128	315	82, 76, 80	26
46	$2^{1+4} : 2^2$	128	315	75 (2), 84 (2), 85 (2), 86 (2), 87 (2), 88 (2), 83, 76, 81	26
47	$D_8 \cdot 2^2 : 2 \cdot 2$	128	315	82, 79, 81	26
48	S_5	120	336	89, 151 (5), 157 (6), 217 (10)	2, 27
49	$A_5 \times 2$	120	336	89, 152 (5), 158 (6), 218 (10)	3, 27
50	S_5	120	336	89, 153 (5), 159 (6), 219 (10)	6 (2), 27
51	S_5	120	672	90, 154 (5), 159 (6), 219 (10)	6, 13
52	$2^4 : S_3$	96	420	94, 113 (3), 149 (8), 150 (4)	8, 28
53	$4^2 : S_3$	96	840	95, 114 (3), 151 (4)	15
54	$4^2 : S_3$	96	420	96, 115 (3), 151 (4)	15, 30
55	$4^2 : 3 : 2$	96	420	96, 116, 152 (4)	16, 30
56	$2^4 : S_3$	96	420	94, 117 (3), 153 (8), 154 (4)	17 (2), 28
57	$4^2 : S_3$	96	420	96, 118 (3), 153 (4)	17, 30
58	$2^4 : 3 : 2$	96	420	94, 117, 155 (4)	28
59	$7 : 3 : 2 \times 2$	84	960	99, 98, 97, 147, 220 (7)	14
60	$2^4 : 5$	80	252	178, 271 (16)	33
61	M_9	72	280	101 (2), 102, 231 (9)	5, 34, 35, 36
62	M_9	72	560	103, 104, 101, 232 (9)	10 (2), 34
63	M_9	72	280	104 (2), 102, 233 (9)	11 (2), 34, 37, 40
64	$3 : S_3 \cdot 2 \cdot 2$	72	280	102, 234 (9)	12 (2), 35, 37, 38
65	$3 : S_3 \cdot 2 : 2$	72	280	102, 105 (2), 235 (9)	13 (2), 36, 37, 39
66	$3 : S_3 \cdot 2 \times 2$	72	560	104, 101, 106, 236 (9)	34
67	$3 : S_3 \cdot 2 \times 2$	72	280	103, 102, 106, 237 (9)	34, 38, 39
68	$3 : S_3 \cdot 2 : 2$	72	280	107 (2), 102, 238 (9)	35, 39, 40
69	$3 : S_3 \cdot 2 \cdot 2$	72	280	102, 239 (9)	36, 38, 40
70	$D_{12} \times S_3$	72	560	106, 108 (2), 109 (2), 107, 105, 148 (6)	39
71	$3 : S_3 \cdot 2 : 2$	72	560	107, 103, 105, 240 (9)	39
72	$2 \times 4 : 2 : 2 : 2$	64	630	113, 119, 120	24 (2), 43
73	$2^{1+4} : 2$	64	630	117 (2), 120, 113, 121 (2), 122	28 (2), 43

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Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
74	$4^2 : 2 : 2$	64	105	113 (6), 123 (6), 124 (3)	29, 41 (3), 42, 43 (3)
75	$2^{1+4} : 2$	64	630	125, 126, 127, 128, 118, 115, 116	30 (2), 46
76	$2^{1+4} : 2$	64	315	129, 124, 130 (2), 115 (2), 131	41, 45, 46
77	$Q_8 \times 2 \cdot 2 : 2$	64	630	123, 132, 131	41
78	$2^{1+4} : 2$	64	630	133 (2), 114 (2), 129, 132, 123	41
79	$Q_8 \times 2 \cdot 2 : 2$	64	315	124, 132 (2)	41, 44, 47
80	$2 \times 8 \cdot 2 : 2$	64	315	124, 134 (2)	42, 44, 45
81	$Q_8 : 2^2 : 2$	64	315	135 (2), 136 (2), 116, 134, 124	42, 46, 47
82	$2 \times 4 : 2 : 2 \cdot 2$	64	315	120 (2), 124	43, 45, 47
83	$2^{1+4} \cdot 2$	64	315	122, 137 (2), 119, 118 (2), 124	43, 44, 46
84	$Q_8 \cdot D_8$	64	630	127, 131, 128, 137, 136, 138, 139	46
85	$Q_8 \cdot (2 \times 4)$	64	630	139, 140, 118, 115, 141, 134, 138	46
86	$2^{1+4} : 2$	64	630	112 (2), 142 (2), 143 (2), 144 (2), 125, 126, 129, 137, 140, 136, 141	46
87	$2^{1+4} : 2$	64	630	125, 127, 110 (2), 141, 111 (2), 145 (2), 139, 146 (2), 135, 130, 122	46
88	$Q_8 \cdot D_8$	64	630	128, 140, 126, 138, 135, 119, 130	46
89	A_5	60	336	221 (5), 227 (6), 264 (10)	8 (2), 48, 49, 50
90	A_5	60	672	222 (5), 227 (6), 264 (10)	8, 19, 51
91	A_5	60	1344	223 (5), 227 (6), 264 (10)	8, 18
92	$2^3 : S_3$	48	1680	150, 155, 154, 179 (3), 219 (4)	13, 23, 28
93	$2^3 : S_3$	48	1680	151, 153, 152, 180 (3), 224 (4)	27, 30
94	$2^4 : 3$	48	420	178, 222 (4), 223 (8), 221 (8)	29 (2), 52, 56, 58

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Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
95	$4^2 : 3$	48	840	181, 221 (4)	29, 53
96	$4^2 : 3$	48	420	182, 221 (4)	29, 54, 55, 57
97	$7 : 3 : 2$	42	960	156, 214, 265 (7)	20 (2), 21, 59
98	$7 : 3 : 2$	42	960	156, 215, 266 (7)	22, 59
99	$7 : 3 \times 2$	42	960	156, 216, 267 (7)	23, 59
100	$D_{10} \cdot 2 \times 2$	40	2016	158, 157, 159, 241 (5)	7, 27
101	$3 : S_3 \cdot 2$	36	560	160, 272 (9)	18 (2), 61, 62, 66
102	$3 : S_3 \cdot 2$	36	280	160, 273 (9)	19 (2), 61, 63, 64, 65, 67, 68, 69
103	$3 : S_3 \cdot 2$	36	280	160, 274 (9)	62 (2), 67, 71 (2)
104	$3 : S_3 \cdot 2$	36	560	160, 274 (9)	62, 63, 66
105	$S_3 \times S_3$	36	560	160, 161 (2), 219 (6)	65, 70, 71
106	$6 : S_3$	36	280	162, 163, 160, 217 (12)	66 (2), 67, 70 (2)
107	$S_3 \times S_3$	36	560	160, 164 (2), 218 (6)	68, 70, 71
108	$S_3 \times 6$	36	1120	161, 163, 164, 225, 220 (3)	70
109	$S_3 \times S_3$	36	1120	161, 162, 164, 224 (3), 226 (3)	70
110	$Q_8 : 2^2$	32	1260	179, 174, 183, 166, 184, 185, 167	7 (2), 87
111	$D_8 : 2^2$	32	1260	179, 186, 185, 170, 187, 188, 169	14 (2), 87
112	$Q_8 : 2^2$	32	1260	176, 177, 174, 175, 173, 172, 171	25 (2), 86
113	$2 \times 4 : 2 : 2$	32	630	178, 189 (2), 190 (2), 191, 192	33 (2), 52 (2), 72, 73, 74
114	$D_8 : 4$	32	1260	193, 194, 181	53 (2), 78
115	$D_8 : 4$	32	630	195, 196, 182	54 (2), 75, 76, 85
116	$D_8 \times 2 : 2$	32	105	197 (6), 182	55 (4), 75 (6), 81 (3)
117	$D_8 \times 2 : 2$	32	420	178, 198 (3), 199 (3)	56 (3), 58, 73 (3)
118	$D_8 : 4$	32	630	200, 201, 182	57 (2), 75, 83, 85
119	$8 : 2 : 2$	32	315	191, 201 (2)	72 (2), 83, 88 (2)
120	$2^3 \cdot 2 : 2$	32	630	198 (2), 191	72, 73, 82
121	$2 \times 4 : 2 : 2$	32	1260	199, 192, 198	73
122	2^{1+4}	32	315	179 (4), 199 (4), 200 (2), 202 (4), 191	73 (2), 83, 87 (2)
123	$2 \times 4 : 2 : 2$	32	630	192 (2), 181, 189, 190 (2), 203	74, 77, 78
124	$Q_8 \times 2 : 2$	32	315	190 (4), 191, 203, 182	74, 76, 79, 80, 81, 82, 83
125	2^{1+4}	32	630	176 (2), 195, 180 (4), 204 (2), 188 (2), 200, 184 (2), 197	75, 86, 87

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Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
126	$D_8 : 2^2$	32	630	197, 205 (2), 195, 177 (2), 201	75, 86, 88
127	$Q_8 : 2^2$	32	630	197, 206 (2), 196, 200, 185 (2)	75, 84, 87
128	$8 : 2 : 2$	32	630	197, 196, 201	75, 84, 88
129	2^{1+4}	32	315	171 (4), 207 (4), 193 (4), 195 (2), 203	76, 78 (2), 86 (2)
130	$D_8 \cdot 2^2$	32	630	169 (2), 166 (2), 195, 196, 191	76, 87, 88
131	$8 : 2 \cdot 2$	32	315	203, 196 (2)	76, 77 (2), 84 (2)
132	$Q_8 \times 2 \cdot 2$	32	630	194 (2), 203	77, 78, 79
133	$D_8 \cdot 2^2$	32	1260	168 (2), 165 (2), 193, 194, 189	78
134	$2 \times 8 \cdot 2$	32	315	208 (2), 182	80 (2), 81, 85 (2)
135	$D_8 : 2^2$	32	630	197, 208, 167 (2), 170 (2), 191	81, 87, 88
136	$Q_8 : 2^2$	32	630	172 (2), 209 (2), 197, 208, 203	81, 84, 86
137	$Q_8 \cdot 2^2$	32	630	173 (2), 210 (2), 200, 203, 201	83, 84, 86
138	$2 \times 8 \cdot 2$	32	630	196, 201, 208	84, 85, 88
139	$Q_8 \cdot 4$	32	630	200, 196, 186 (2), 183 (2), 208	84, 85, 87
140	$D_8 \cdot 4$	32	630	211 (2), 175 (2), 195, 208, 201	85, 86, 88
141	$Q_8 \cdot 2^2$	32	630	174, 212, 187, 213, 200, 195, 208	85, 86, 87
142	$Q_8 \cdot 2^2$	32	1260	204, 210, 177, 171, 209, 212, 211	86
143	$D_8 : 2^2$	32	1260	176, 207, 173, 205, 187, 211, 209	86
144	$Q_8 \cdot 2^2$	32	1260	204, 210, 205, 207, 172, 213, 175	86
145	$D_8 \cdot 2^2$	32	1260	206, 166, 170, 212, 184, 186, 202	87
146	$D_8 : 2^2$	32	1260	188, 167, 183, 169, 202, 206, 213	87
147	D_{28}	28	960	216, 215, 214, 275 (7)	59
148	$S_3 \times 2^2$	24	3360	225, 219, 226, 224, 220, 217, 218, 242 (3)	14, 27, 70
149	$2^2 : S_3$	24	3360	223, 243 (3), 264 (4)	18, 31, 52
150	$2^2 : S_3$	24	1680	222, 244 (3), 264 (4)	19, 32, 52, 92
151	$2^2 : S_3$	24	1680	221, 245 (3), 268 (4)	48, 53 (2), 54, 93

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Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
152	$A_4 \times 2$	24	1680	221, 246, 266 (4)	49, 55, 93
153	$2^2 : S_3$	24	1680	221, 247 (3), 269 (4)	50, 56 (2), 57, 93
154	$2^2 : S_3$	24	1680	222, 248 (3), 269 (4)	51 (2), 56, 92
155	$A_4 \times 2$	24	1680	222, 249, 267 (4)	58, 92
156	$7 : 3$	21	960	263, 283 (7)	31 (2), 32, 97, 98, 99
157	$D_{10} \cdot 2$	20	2016	227, 274 (5)	10 (2), 11, 48, 100
158	D_{20}	20	2016	228, 227, 229, 276 (5)	12, 49, 100
159	$D_{10} \cdot 2$	20	2016	227, 277 (5)	24 (2), 50, 51 (2), 100
160	$3 : S_3$	18	280	230, 264 (12)	101 (2), 102, 103, 104 (2), 105 (2), 106, 107 (2)
161	$S_3 \times 3$	18	1120	230, 269, 267 (3)	105, 108, 109
162	$3 : S_3$	18	280	230, 268 (12)	106, 109 (4)
163	3×6	18	280	230, 265 (4)	106, 108 (4)
164	$S_3 \times 3$	18	1120	230, 270, 266 (3)	107, 108, 109
165	$Q_8 : 2$	16	2520	243, 250, 232	10 (2), 133
166	$Q_8 : 2$	16	1260	244, 251, 233	11 (2), 110, 130, 145
167	D_{16}	16	1260	244, 234, 252	12 (2), 110, 135, 146
168	D_{16}	16	2520	253, 250, 243	20 (2), 133
169	D_{16}	16	1260	254, 251, 244	21 (2), 111, 130, 146
170	D_{16}	16	1260	244, 255, 252	22 (2), 111, 135, 145
171	$Q_8 \times 2$	16	1260	237, 232 (2), 236 (2), 233, 231	34 (2), 112, 129, 142
172	$Q_8 : 2$	16	1260	238, 234, 231	35 (2), 112, 136, 144
173	$D_8 \cdot 2$	16	1260	235, 231, 239	36 (2), 112, 137, 143
174	$D_8 \cdot 2$	16	630	235, 233, 234	37 (4), 110 (2), 112 (2), 141
175	2×8	16	1260	237, 234, 239	38 (2), 112, 140, 144
176	$D_8 \times 2$	16	1260	242 (2), 238, 240 (2), 237, 235	39 (2), 112, 125, 143
177	$D_8 \cdot 2$	16	1260	238, 233, 239	40 (2), 112, 126, 142
178	2^4	16	42	256 (15)	60 (6), 94 (10), 113 (15), 117 (10)
179	$D_8 \times 2$	16	1260	235, 257, 248 (2), 249 (2), 244	92 (4), 110, 111, 122
180	$D_8 \times 2$	16	2520	242, 241, 240, 258, 247, 246, 245	93 (2), 125
181	4^2	16	210	259 (3)	95 (4), 114 (6), 123 (3)
182	4^2	16	105	260 (3)	96 (4), 115 (6), 116, 118 (6), 124 (3), 134 (3)

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Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
183	$8 : 2$	16	1260	257, 251, 234	110, 139, 146
184	$D_8 : 2$	16	1260	240 (2), 241 (2), 257, 233, 252	110, 125, 145
185	D_{16}	16	1260	235, 251, 252	110, 111, 127
186	2×8	16	1260	255, 257, 251	111, 139, 145
187	D_{16}	16	630	235, 255, 254	111 (2), 141, 143 (2)
188	$D_8 \times 2$	16	1260	258 (2), 242 (2), 254, 252, 257	111, 125, 146
189	$D_8 \times 2$	16	630	256 (2), 243 (4), 259	113 (2), 123, 133 (2)
190	$2 \times 4 : 2$	16	1260	256, 260, 259	113, 123, 124
191	$D_8 \times 2$	16	315	256 (2), 260, 244 (4)	113 (2), 119, 120 (2), 122, 124, 130 (2), 135 (2)
192	$2 \times 4 : 2$	16	630	256, 259 (2)	113, 121 (2), 123 (2)
193	$D_8 : 2$	16	1260	245 (2), 236 (2), 253, 232, 259	114, 129, 133
194	$8 : 2$	16	1260	259, 250 (2)	114, 132, 133
195	$D_8 : 2$	16	630	254, 233, 237 (2), 245 (2), 260	115, 125, 126, 129, 130, 140, 141
196	$8 : 2$	16	630	260, 251 (2)	115, 127, 128, 130, 131, 138, 139
197	$D_8 \times 2$	16	630	252 (2), 238 (2), 246 (2), 260	116, 125, 126, 127, 128, 135, 136
198	$2 \times 4 : 2$	16	1260	256, 261 (2)	117, 120, 121
199	$D_8 \times 2$	16	1260	248 (2), 247 (2), 249, 261, 256	117, 121, 122
200	$D_8 : 2$	16	630	235, 262, 257 (2), 247 (2), 260	118, 122, 125, 127, 137, 139, 141
201	$8 : 2$	16	630	260, 239 (2)	118, 119, 126, 128, 137, 138, 140
202	$D_8 : 2$	16	1260	248 (2), 262, 261 (2), 257, 244	122, 145, 146
203	$Q_8 \times 2$	16	315	231 (4), 259 (2), 260	123 (2), 124, 129, 131, 132 (2), 136 (2), 137 (2)
204	$D_8 : 2$	16	1260	241 (2), 262, 238, 258 (2), 237	125, 142, 144
205	D_{16}	16	1260	254, 238, 239	126, 143, 144
206	$Q_8 : 2$	16	1260	252, 251, 262	127, 145, 146
207	$D_8 : 2$	16	1260	253 (2), 236 (2), 254, 231, 237	129, 143, 144
208	2×8	16	630	255, 234, 260	134, 135, 136, 138, 139, 140, 141

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Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
209	$Q_8 : 2$	16	1260	238, 255, 231	136, 142, 143
210	Q_{16}	16	1260	262, 231, 239	137, 142, 144
211	$8 : 2$	16	1260	237, 255, 239	140, 142, 143
212	Q_{16}	16	630	262, 233, 255	141, 142 (2), 145 (2)
213	$Q_8 : 2$	16	630	254, 234, 262	141, 144 (2), 146 (2)
214	D_{14}	14	960	263, 284 (7)	97, 147
215	D_{14}	14	960	263, 285 (7)	98, 147
216	14	14	960	263, 286	99, 147
217	D_{12}	12	3360	264, 265, 268, 278 (3)	20 (2), 21, 48, 106, 148
218	D_{12}	12	3360	264, 266, 270, 276 (3)	22, 49, 107, 148
219	D_{12}	12	3360	264, 267, 269, 279 (3)	50, 51 (2), 92 (2), 105, 148
220	2×6	12	3360	265, 267, 266, 275	59 (2), 108, 148
221	A_4	12	1680	280, 283 (4)	89, 94 (2), 95 (2), 96, 151, 152, 153
222	A_4	12	1680	281, 283 (4)	90 (2), 94, 150, 154, 155
223	A_4	12	3360	282, 283 (4)	91 (2), 94, 149
224	D_{12}	12	3360	266, 268, 269, 275 (3)	93 (2), 109, 148
225	D_{12}	12	1120	270, 265, 269, 275 (3)	108, 148 (3)
226	D_{12}	12	3360	270, 267, 268, 275 (3)	109, 148
227	D_{10}	10	2016	271, 287 (5)	33 (2), 89, 90 (2), 91 (4), 157, 158, 159
228	10	10	2016	271, 285	158
229	D_{10}	10	2016	271, 285 (5)	158
230	3^2	9	280	283 (4)	160, 161 (4), 162, 163, 164 (4)
231	Q_8	8	1260	273, 272 (2)	61 (2), 171, 172, 173, 203, 207, 209, 210
232	Q_8	8	1260	272, 274 (2)	62 (4), 165 (2), 171 (2), 193
233	Q_8	8	630	273, 274 (2)	63 (4), 166 (2), 171 (2), 174, 177 (2), 184 (2), 195, 212
234	8	8	630	273	64 (4), 167 (2), 172 (2), 174, 175 (2), 183 (2), 208, 213
235	D_8	8	630	279 (2), 273	65 (4), 173 (2), 174, 176 (2), 179 (2), 185 (2), 187, 200

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<i>continued from previous page</i>					
Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
236	2×4	8	2520	278, 274, 272	66 (2), 171, 193, 207
237	2×4	8	1260	278, 274, 273	67 (2), 171, 175, 176, 195, 204, 207, 211
238	D_8	8	1260	276 (2), 273	68 (2), 172, 176, 177, 197, 204, 205, 209
239	8	8	1260	273	69 (2), 173, 175, 177, 201, 205, 210, 211
240	D_8	8	2520	279, 276, 274	71 (2), 176, 180, 184
241	2×4	8	2520	277, 276, 274	100 (4), 180, 184, 204
242	2^3	8	2520	275 (4), 276, 279, 278	148 (4), 176, 180, 188
243	D_8	8	2520	282 (2), 272	149 (4), 165, 168, 189
244	D_8	8	1260	281 (2), 273	150 (4), 166, 167, 169, 170, 179, 191, 202
245	D_8	8	1260	278, 274, 280	151 (4), 180 (2), 193 (2), 195
246	2^3	8	420	276 (6), 280	152 (4), 180 (6), 197 (3)
247	D_8	8	1260	279, 277, 280	153 (4), 180 (2), 199 (2), 200
248	D_8	8	2520	279, 277, 281	154 (2), 179, 199, 202
249	2^3	8	420	279 (6), 281	155 (4), 179 (6), 199 (3)
250	8	8	2520	272	165, 168, 194
251	8	8	1260	273	166, 169, 183, 185, 186, 196, 206
252	D_8	8	1260	276 (2), 273	167, 170, 184, 185, 188, 197, 206
253	D_8	8	1260	278 (2), 272	168 (2), 193, 207 (2)
254	D_8	8	630	278 (2), 273	169 (2), 187, 188 (2), 195, 205 (2), 207 (2), 213
255	8	8	630	273	170 (2), 186 (2), 187, 208, 209 (2), 211 (2), 212
256	2^3	8	630	280, 282 (4), 281 (2)	178, 189 (2), 190 (2), 191, 192, 198 (2), 199 (2)
257	2×4	8	1260	279, 273, 277	179, 183, 184, 186, 188, 200, 202
258	D_8	8	2520	276, 278, 277	180, 188, 204
259	2×4	8	630	272 (2), 280	181, 189, 190 (2), 192 (2), 193 (2), 194 (2), 203

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<i>continued from previous page</i>					
Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
260	2×4	8	315	273 (2), 280	182, 190 (4), 191, 195 (2), 196 (2), 197 (2), 200 (2), 201 (2), 203, 208 (2)
261	2×4	8	1260	277 (2), 281	198 (2), 199, 202 (2)
262	Q_8	8	630	277 (2), 273	200, 202 (2), 204 (2), 206 (2), 210 (2), 212, 213
263	7	7	960	288	156, 214, 215, 216
264	S_3	6	3360	283, 287 (3)	89, 90 (2), 91 (4), 149 (4), 150 (2), 160, 217, 218, 219
265	6	6	1120	283, 284	97 (6), 163, 217 (3), 220 (3), 225
266	6	6	3360	283, 285	98 (2), 152 (2), 164, 218, 220, 224
267	6	6	3360	283, 286	99 (2), 155 (2), 161, 219, 220, 226
268	S_3	6	3360	283, 284 (3)	151 (2), 162, 217, 224, 226
269	S_3	6	1120	283, 286 (3)	153 (6), 154 (6), 161, 219 (3), 224 (3), 225
270	S_3	6	1120	283, 285 (3)	164, 218 (3), 225, 226 (3)
271	5	5	2016	288	60 (2), 227, 228, 229
272	4	4	1260	287	101 (4), 231 (2), 232, 236 (2), 243 (2), 250 (2), 253, 259
273	4	4	630	287	102 (4), 231 (2), 233, 234, 235, 237 (2), 238 (2), 239 (2), 244 (2), 251 (2), 252 (2), 254, 255, 257 (2), 260, 262
274	4	4	1260	287	103 (2), 104 (4), 157 (8), 232 (2), 233, 236 (2), 237, 240 (2), 241 (2), 245
275	2^2	4	3360	284, 286, 285	147 (2), 220, 224 (3), 225, 226 (3), 242 (3)
276	2^2	4	2520	285 (2), 287	158 (4), 218 (4), 238, 240, 241, 242, 246, 252, 258

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<i>continued from previous page</i>					
Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
277	4	4	1260	287	159 (8), 241 (2), 247, 248 (2), 257, 258 (2), 261 (2), 262
278	2^2	4	1260	284 (2), 287	217 (8), 236 (2), 237, 242 (2), 245, 253 (2), 254, 258 (2)
279	2^2	4	1260	286 (2), 287	219 (8), 235, 240 (2), 242 (2), 247, 248 (2), 249 (2), 257
280	2^2	4	105	287 (3)	221 (16), 245 (12), 246 (4), 247 (12), 256 (6), 259 (6), 260 (3)
281	2^2	4	420	287 (3)	222 (4), 244 (6), 248 (6), 249, 256 (3), 261 (3)
282	2^2	4	840	287 (3)	223 (4), 243 (6), 256 (3)
283	3	3	1120	288	156 (6), 221 (6), 222 (6), 223 (12), 230, 264 (3), 265, 266 (3), 267 (3), 268 (3), 269, 270
284	2	2	280	288	214 (24), 265 (4), 268 (36), 275 (12), 278 (9)
285	2	2	336	288	215 (20), 228 (6), 229 (30), 266 (10), 270 (10), 275 (10), 276 (15)
286	2	2	120	288	216 (8), 267 (28), 269 (28), 275 (28), 279 (21)
287	2	2	315	288	227 (32), 264 (32), 272 (4), 273 (2), 274 (4), 276 (8), 277 (4), 278 (4), 279 (4), 280, 281 (4), 282 (8)
288	1	1	1		263 (960), 271 (2016), 283 (1120), 284 (280), 285 (336), 286 (120), 287 (315)

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Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups

TABLE 1. Subgroup lattice of $L_3(4) : 2^2$

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