

THE SUBGROUP LATTICE OF $Sp(4, 4)$

THOMAS CONNOR AND DIMITRI LEEMANS

Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
1	$Sp(4, 4)$	979200	1	2 (85), 3 (85), 4 (120), 5 (120), 6 (136), 7 (136), 25 (1360)	
2	$2^6 : A_5 : 3$	11520	85	10, 14 (5), 15 (6), 17 (10), 26 (16)	1
3	$2^6 : A_5 : 3$	11520	85	11, 14 (5), 16 (6), 18 (10), 27 (16)	1
4	$L_2(16) : 2$	8160	120	8, 34 (17), 87 (68), 123 (120), 139 (136)	1
5	$L_2(16) : 2$	8160	120	9, 35 (17), 88 (68), 123 (120), 140 (136)	1
6	$A_5 \times A_5 : 2$	7200	136	12, 51 (25), 60 (36), 89 (60), 87 (60), 120 (100)	1
7	$A_5 \times A_5 : 2$	7200	136	13, 52 (25), 60 (36), 90 (60), 88 (60), 120 (100)	1
8	$L_2(16)$	4080	120	54 (17), 141 (68), 187 (120), 247 (136)	4
9	$L_2(16)$	4080	120	55 (17), 142 (68), 187 (120), 248 (136)	5
10	$2^6 : A_5$	3840	85	21 (5), 28 (6), 36 (10), 56 (48), 57 (16)	2
11	$2^6 : A_5$	3840	85	22 (5), 29 (6), 37 (10), 58 (48), 59 (16)	3
12	$A_5 \times A_5$	3600	136	26 (10), 30 (12), 40 (20), 141 (60), 143 (60)	6
13	$A_5 \times A_5$	3600	136	27 (10), 31 (12), 41 (20), 144 (60), 142 (60)	7

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Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
14	$2^6 : 3 : 2 : 2 : 3$	2304	425	21, 23, 22, 24, 32 (4), 33 (4)	2, 3
15	$2^4 : 5 \times 2 \times 2 : 3 : 2$	1920	510	19, 28, 35 (4), 38 (5), 91 (16)	2
16	$2^4 : 5 \times 2 \times 2 : 3 : 2$	1920	510	20, 29, 34 (4), 39 (5), 92 (16)	3
17	$2^6 : 3 : S_3$	1152	850	32, 36, 38 (3), 52 (4), 121 (16)	2
18	$2^6 : 3 : S_3$	1152	850	33, 37, 39 (3), 51 (4), 122 (16)	3
19	$2^4 : 5 \times 2 \times 2 : 3$	960	510	43, 55 (4), 61, 145 (16)	15
20	$2^4 : 5 \times 2 \times 2 : 3$	960	510	44, 54 (4), 62, 146 (16)	16
21	$D_8 \times 2^3 : 2 : 2 : 3$	768	425	53, 63 (12), 64 (4), 65 (4)	10, 14
22	$2 \times 4 : 2 \times 2 \times 2 : 2 : 2 : 3$	768	425	53, 66 (12), 67 (4), 68 (4)	11, 14
23	$2^6 : 3 : 2 : 2$	768	425	38 (3), 53, 64 (4)	14
24	$2^6 : 3 : 2 : 2$	768	425	39 (3), 53, 68 (4)	14
25	$A_6 : 2$	720	1360	42, 90 (6), 89 (6), 120 (10), 152 (15), 153 (15)	1
26	$A_5 \times 2 \times 2 : 3$	720	1360	57, 73 (4), 81 (5), 91 (6), 121 (10)	2, 12
27	$A_5 \times 2 \times 2 : 3$	720	1360	59, 74 (4), 82 (5), 92 (6), 122 (10)	3, 13
28	$2^4 : 5 \times 2 : 2 \times 2$	640	510	45 (3), 46 (3), 43, 84 (5), 180 (16)	10, 15
29	$2^4 : 5 : 2 \times 2 \times 2$	640	510	47 (3), 48 (3), 44, 85 (5), 181 (16)	11, 16
30	$A_5 \times 5 : 2$	600	1632	49, 93 (5), 91 (5), 99 (6), 140 (10)	12
31	$A_5 \times 5 : 2$	600	1632	50, 94 (5), 92 (5), 100 (6), 139 (10)	13
32	$2^4 : 3 \times 2 \times 2 : 3$	576	850	61, 68 (2), 65, 82 (4), 83 (8)	14 (2), 17
33	$2^4 : 3 \times 2 \times 2 : 3$	576	850	64 (2), 67, 62, 81 (4), 83 (8)	14 (2), 18
34	$2^4 : 5 : 3 : 2$	480	2040	54, 75, 102 (5), 249 (16)	4, 16
35	$2^4 : 5 : 3 : 2$	480	2040	55, 76, 103 (5), 250 (16)	5, 15

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Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
36	$2^6 : S_3$	384	850	69 (3), 70 (3), 65, 84 (3), 104 (12)	10, 17
37	$2^6 : S_3$	384	850	71 (3), 67, 72 (3), 85 (3), 105 (12)	11, 18
38	$2^6 : 3 : 2$	384	1275	61, 84, 106 (8), 107 (4), 103 (8)	15 (2), 17 (2), 23
39	$2^6 : 3 : 2$	384	1275	62, 85, 102 (8), 108 (4), 109 (8)	16 (2), 18 (2), 24
40	$A_5 \times S_3$	360	2720	73, 93 (3), 121 (5), 140 (6), 182 (10)	12
41	$A_5 \times S_3$	360	2720	74, 94 (3), 122 (5), 139 (6), 183 (10)	13
42	A_6	360	1360	144 (6), 143 (6), 184 (10), 254 (15), 255 (15)	25
43	$2^4 : 5 \times 2 \times 2$	320	510	77 (3), 124, 280 (16)	19, 28
44	$2^4 : 5 \times 2 \times 2$	320	510	78 (3), 125, 281 (16)	20, 29
45	$2^4 : 5 \times 2 : 2$	320	1530	77, 76, 79, 126 (5), 282 (16)	28
46	$2^4 : 5 : 2 \times 2$	320	1530	79 (2), 77, 127 (5), 283 (16)	28
47	$2^4 : 5 : 2 \times 2$	320	1530	80 (2), 78, 128 (5), 284 (16)	29
48	$2^4 : 5 : 2 \times 2$	320	1530	80, 78, 75, 129 (5), 285 (16)	29
49	$A_5 \times 5$	300	1632	147, 145 (5), 149 (6), 251 (10)	30
50	$A_5 \times 5$	300	1632	148, 146 (5), 150 (6), 252 (10)	31
51	$2^4 : 3 : S_3$	288	3400	81, 110, 109 (3), 287 (16)	6, 18
52	$2^4 : 3 : S_3$	288	3400	82, 111, 106 (3), 288 (16)	7, 17
53	$D_8 \times 2^3 : 2 : 2$	256	425	85 (3), 84 (3), 86 (9)	21, 22, 23, 24
54	$2^4 : 5 : 3$	240	2040	118, 154, 374 (16)	8, 20, 34
55	$2^4 : 5 : 3$	240	2040	119, 155, 375 (16)	9, 19, 35
56	$A_5 \times 2 \times 2$	240	4080	88, 95, 96, 156 (5), 180 (6), 256 (10)	10
57	$A_5 \times 2 \times 2$	240	1360	93 (3), 157 (5), 180 (6), 256 (10)	10, 26
58	$A_5 \times 2 \times 2$	240	4080	87, 97, 98, 158 (5), 181 (6), 257 (10)	11

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Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
59	$A_5 \times 2 \times 2$	240	1360	94 (3), 159 (5), 181 (6), 257 (10)	11, 27
60	$5^2 : 2 : 2 : 2$	200	4896	101, 100, 99, 398 (25)	6, 7
61	$2^6 : 3$	192	85	124, 155 (24), 160 (40), 161 (20)	19 (6), 32 (10), 38 (15)
62	$2^6 : 3$	192	85	125, 162 (40), 163 (20), 154 (24)	20 (6), 33 (10), 39 (15)
63	$2^2 \times 4 \cdot 2 : 3 \times 2$	192	5100	112, 130, 164 (4)	21
64	$2^4 : 3 \times 2 \times 2$	192	1700	107 (3), 125, 164 (4), 157 (4), 156 (12)	21, 23, 33
65	$2^4 : 3 \times 2 \times 2$	192	850	113 (3), 124, 164 (8), 165 (12)	21 (2), 32, 36
66	$2^2 \times 4 \cdot 2 : 3 \times 2$	192	5100	114, 131, 166 (4)	22
67	$2^4 : 3 \times 2 \times 2$	192	850	115 (3), 125, 166 (8), 167 (12)	22 (2), 33, 37
68	$2^4 : 3 \times 2 \times 2$	192	1700	108 (3), 124, 166 (4), 158 (12), 159 (4)	22, 24, 32
69	$2^5 : S_3$	192	2550	116 (2), 113, 132 (3), 168 (4), 169 (4), 170 (4)	36
70	$2^5 : S_3$	192	2550	116, 113, 111, 133 (3), 171 (4), 153 (4), 172 (4)	36
71	$2^5 : S_3$	192	2550	117 (2), 115, 134 (3), 173 (4), 174 (4), 175 (4)	37
72	$2^5 : S_3$	192	2550	117, 115, 110, 135 (3), 152 (4), 176 (4), 177 (4)	37
73	$A_5 \times 3$	180	2720	147, 185 (5), 250 (6), 288 (10)	26 (2), 40
74	$A_5 \times 3$	180	2720	148, 186 (5), 249 (6), 287 (10)	27 (2), 41
75	$2^4 : 5 : 2$	160	510	118, 188 (5), 390 (16)	34 (4), 48 (3)
76	$2^4 : 5 : 2$	160	510	119, 189 (5), 391 (16)	35 (4), 45 (3)
77	$2^4 : 5 \times 2$	160	1530	119, 190, 392 (16)	43, 45, 46
78	$2^4 : 5 \times 2$	160	1530	118, 191, 393 (16)	44, 47, 48
79	$2^4 : 5 : 2$	160	1530	119, 192 (5), 394 (16)	45, 46 (2)
80	$2^4 : 5 : 2$	160	1530	118, 193 (5), 395 (16)	47 (2), 48
81	$A_4 \times 2 \times 2 : 3$	144	3400	178, 162, 157 (2), 185 (8)	26 (2), 33, 51
82	$A_4 \times 2 \times 2 : 3$	144	3400	179, 160, 159 (2), 186 (8)	27 (2), 32, 52

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Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
83	$A_4 \times 2 \times 2 : 3$	144	6800	161, 164, 163, 166, 186 (4), 185 (4)	32, 33
84	$2^3 \cdot 2 : 2 \times 2 \times 2$	128	1275	126 (6), 132 (6), 133 (6), 127 (6), 136 (3), 137 (3), 124	28 (2), 36 (2), 38, 53
85	$2^4 \cdot 2 : 2 \times 2$	128	1275	125, 134 (6), 128 (6), 129 (6), 135 (6), 138 (3), 136 (3)	29 (2), 37 (2), 39, 53
86	$D_8 \times 2^3 \cdot 2$	128	3825	136, 131, 138 (2), 137 (2), 130	53
87	$A_5 \times 2$	120	4080	141, 258 (5), 285 (6), 376 (10)	4 (2), 6 (2), 58
88	$A_5 \times 2$	120	4080	142, 259 (5), 282 (6), 377 (10)	5 (2), 7 (2), 56
89	S_5	120	8160	143, 260 (5), 286 (6), 376 (10)	6, 25
90	S_5	120	8160	144, 261 (5), 286 (6), 377 (10)	7, 25
91	$2 \times 10 : 3 : 2$	120	8160	145, 180, 250 (4), 262 (5)	15, 26, 30
92	$2 \times 10 : 3 : 2$	120	8160	146, 181, 249 (4), 263 (5)	16, 27, 31
93	$A_5 \times 2$	120	4080	147, 262 (5), 282 (6), 377 (10)	30 (2), 40 (2), 57
94	$A_5 \times 2$	120	4080	148, 263 (5), 285 (6), 376 (10)	31 (2), 41 (2), 59
95	$A_5 \times 2$	120	4080	142, 264 (5), 283 (6), 378 (10)	56
96	$A_5 \times 2$	120	4080	142, 265 (5), 283 (6), 378 (10)	56
97	$A_5 \times 2$	120	4080	141, 266 (5), 284 (6), 379 (10)	58
98	$A_5 \times 2$	120	4080	141, 267 (5), 284 (6), 379 (10)	58
99	$5^2 : 2 : 2$	100	4896	151, 149 (2), 282 (10)	30 (2), 60
100	$5^2 : 2 : 2$	100	4896	150 (2), 151, 285 (10)	31 (2), 60
101	$5^2 : 2 \cdot 2$	100	4896	151, 286 (10)	60
102	$2^4 : 3 : 2$	96	10200	154, 188, 258 (4)	34, 39
103	$2^4 : 3 : 2$	96	10200	155, 189, 259 (4)	35, 38
104	$2^4 : S_3$	96	10200	172, 169, 153, 170, 165, 168, 171, 194 (3), 256 (4)	36

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Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
105	$2^4 : S_3$	96	10200	167, 174, 173, 175, 177, 176, 152, 195 (3), 257 (4)	37
106	$2^4 : 3 : 2$	96	10200	160, 196, 259 (4)	38, 52
107	$2^4 : 3 \times 2$	96	5100	161, 197, 265 (4), 268 (4), 262 (4), 264 (4), 259 (4)	38, 64
108	$2^4 : 3 \times 2$	96	5100	163, 198, 258 (4), 269 (4), 267 (4), 263 (4), 266 (4)	39, 68
109	$2^4 : 3 : 2$	96	10200	162, 199, 258 (4)	39, 51
110	$2^4 : S_3$	96	850	178, 199 (3), 260 (12)	51 (4), 72 (3)
111	$2^4 : S_3$	96	850	179, 196 (3), 261 (12)	52 (4), 70 (3)
112	$2^2 \times 4 \cdot 2 : 3$	96	5100	200, 268 (4)	63
113	$2^4 : 3 \times 2$	96	2550	179, 201, 270 (4), 268 (8), 271 (4), 272 (4)	65, 69, 70
114	$2^2 \times 4 \cdot 2 : 3$	96	5100	202, 269 (4)	66
115	$2^4 : 3 \times 2$	96	2550	178, 203, 273 (4), 269 (8), 274 (4), 275 (4)	67, 71, 72
116	$2^4 : S_3$	96	2550	179, 204 (3), 255 (4), 276 (4), 277 (4)	69 (2), 70
117	$2^4 : S_3$	96	2550	178, 205 (3), 278 (4), 254 (4), 279 (4)	71 (2), 72
118	$2^4 : 5$	80	510	291, 469 (16)	54 (4), 75, 78 (3), 80 (3)
119	$2^4 : 5$	80	510	292, 470 (16)	55 (4), 76, 77 (3), 79 (3)
120	$3 : S_3 \cdot 2 : 2$	72	13600	183, 184, 182, 398 (9)	6, 7, 25
121	$A_4 \times S_3$	72	13600	185, 256, 262 (3), 288 (4)	17, 26, 40
122	$A_4 \times S_3$	72	13600	186, 257, 263 (3), 287 (4)	18, 27, 41
123	$D_{34} \cdot 2$	68	14400	187, 472 (17)	4, 5
124	2^6	64	85	201 (30), 190 (18), 198 (15)	43 (6), 61, 65 (10), 68 (20), 84 (15)
125	2^6	64	85	191 (18), 203 (30), 197 (15)	44 (6), 62, 64 (20), 67 (10), 85 (15)
126	$2^4 \cdot 2 : 2$	64	7650	206, 207, 208, 209, 210 (2), 211, 212, 213, 214, 215, 216, 189, 192, 190	45, 84

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Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
127	$D_8 \times 2 : 2 \times 2$	64	7650	217, 216, 213, 218 (2), 190, 219, 192 (2), 220, 221, 222, 223, 224, 209	46, 84
128	$D_8 \times 2^2 : 2$	64	7650	191, 225 (2), 193 (2), 226, 227, 228, 229, 230, 231, 232, 224, 233, 234	47, 85
129	$2 \times 4 : 2 : 2 \times 2$	64	7650	235, 236 (2), 229, 237, 238, 232, 239, 240, 191, 241, 188, 193, 242, 226	48, 85
130	$2^3 \times 4 \cdot 2$	64	1275	200 (4), 243 (3)	63 (4), 86 (3)
131	$2^3 \times 4 \cdot 2$	64	1275	243 (3), 202 (4)	66 (4), 86 (3)
132	$D_8 \times 2^2 : 2$	64	7650	209, 219, 211 (2), 244, 216, 214, 221, 239, 201, 217, 220, 204 (2), 207	69, 84
133	$D_8 \times 2^2 : 2$	64	7650	210, 223, 208, 221, 212 (2), 244, 245, 218, 215, 217, 222, 196, 204, 201	70, 84
134	$2^2 \times 4 : 2 : 2$	64	7650	205 (2), 227, 231, 232, 235 (2), 226, 203, 241, 233, 206, 237, 234, 246	71, 85
135	$D_8 \times 2 : 2 \times 2$	64	7650	199, 238 (2), 228, 245, 205, 231, 240, 246, 203, 242, 227, 236, 230, 225	72, 85
136	$D_8 \times 2^3$	64	3825	195 (4), 194 (4), 242 (2), 233 (2), 234 (2), 240 (2), 208 (2), 243, 245, 239, 197, 220 (2), 215 (2), 219 (2), 206, 198, 224	84, 85, 86
137	$2 \times 4 : 2 \times 2 \times 2$	64	3825	207 (2), 243 (2), 223 (2), 222 (2), 244 (2), 214 (2), 198, 213 (2)	84, 86 (2)
138	$2^2 \times 4 : 2 \times 2$	64	3825	241 (2), 229 (2), 246 (2), 230 (2), 237 (2), 228 (2), 197, 243 (2)	85, 86 (2)

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Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
139	$D_{10} \times S_3$	60	16320	252, 249, 247, 285 (3), 376 (5)	4, 31, 41
140	$D_{10} \times S_3$	60	16320	251, 250, 248, 282 (3), 377 (5)	5, 30, 40
141	A_5	60	4080	380 (5), 395 (6), 463 (10)	8 (2), 12 (2), 87, 97, 98
142	A_5	60	4080	381 (5), 394 (6), 464 (10)	9 (2), 13 (2), 88, 95, 96
143	A_5	60	8160	382 (5), 396 (6), 463 (10)	12, 42, 89
144	A_5	60	8160	383 (5), 396 (6), 464 (10)	13, 42, 90
145	$2 \times 10 : 3$	60	8160	280, 375 (4), 384	19, 49, 91
146	$2 \times 10 : 3$	60	8160	281, 374 (4), 385	20, 50, 92
147	A_5	60	272	384 (5), 391 (6), 465 (10)	49 (6), 73 (10), 93 (15)
148	A_5	60	272	385 (5), 390 (6), 466 (10)	50 (6), 74 (10), 94 (15)
149	$5^2 : 2$	50	9792	253, 391, 392 (5)	49, 99
150	$5^2 : 2$	50	9792	253, 390, 393 (5)	50, 100
151	$5^2 : 2$	50	4896	253, 394 (10), 395 (10), 396 (10)	99, 100, 101
152	$2^3 : S_3$	48	10200	254, 274, 260, 293 (3), 376 (4)	25 (2), 72, 105
153	$2^3 : S_3$	48	10200	272, 261, 255, 293 (3), 377 (4)	25 (2), 70, 104
154	$2^4 : 3$	48	2040	291, 380 (20)	54, 62, 102 (5)
155	$2^4 : 3$	48	2040	292, 381 (20)	55, 61, 103 (5)
156	$A_4 \times 2 \times 2$	48	20400	264, 259, 265, 294, 386 (4)	56, 64
157	$A_4 \times 2 \times 2$	48	6800	262 (3), 295, 386 (4)	57, 64, 81
158	$A_4 \times 2 \times 2$	48	20400	266, 267, 258, 296, 387 (4)	58, 68
159	$A_4 \times 2 \times 2$	48	6800	263 (3), 297, 387 (4)	59, 68, 82
160	$2^4 : 3$	48	3400	297, 381 (12), 388 (8)	61, 82, 106 (3)
161	$2^4 : 3$	48	1700	298, 381 (12), 388 (4), 384 (4)	61, 83 (4), 107 (3)
162	$2^4 : 3$	48	3400	295, 389 (8), 380 (12)	62, 81, 109 (3)
163	$2^4 : 3$	48	1700	298, 380 (12), 385 (4), 389 (4)	62, 83 (4), 108 (3)
164	$A_4 \times 2 \times 2$	48	6800	268 (3), 298, 386 (4)	63 (3), 64, 65, 83
165	$A_4 \times 2 \times 2$	48	10200	271, 270, 272, 299, 386 (4)	65, 104

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Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
166	$A_4 \times 2 \times 2$	48	6800	269 (3), 298, 387 (4)	66 (3), 67, 68, 83
167	$A_4 \times 2 \times 2$	48	10200	274, 273, 275, 300, 387 (4)	67, 105
168	$2^3 : S_3$	48	10200	271, 276, 255, 301 (3), 378 (4)	69, 104
169	$2^3 : S_3$	48	10200	277, 276, 272, 302 (3), 378 (4)	69, 104
170	$2^3 : S_3$	48	10200	270, 255, 277, 303 (3), 378 (4)	69, 104
171	$2^3 : S_3$	48	10200	271, 261, 277, 304 (3), 377 (4)	70, 104
172	$2^3 : S_3$	48	10200	270, 261, 276, 305 (3), 377 (4)	70, 104
173	$2^3 : S_3$	48	10200	279, 274, 278, 306 (3), 379 (4)	71, 105
174	$2^3 : S_3$	48	10200	254, 279, 273, 307 (3), 379 (4)	71, 105
175	$2^3 : S_3$	48	10200	278, 254, 275, 308 (3), 379 (4)	71, 105
176	$2^3 : S_3$	48	10200	273, 260, 278, 309 (3), 376 (4)	72, 105
177	$2^3 : S_3$	48	10200	260, 279, 275, 310 (3), 376 (4)	72, 105
178	$2^4 : 3$	48	850	295, 389 (8), 382 (12)	81 (4), 110, 115 (3), 117 (3)
179	$2^4 : 3$	48	850	297, 383 (12), 388 (8)	82 (4), 111, 113 (3), 116 (3)
180	$D_{20} \times 2$	40	8160	282 (3), 283 (3), 280, 399 (5)	28, 56 (3), 57, 91
181	$D_{20} \times 2$	40	8160	284 (3), 285 (3), 281, 400 (5)	29, 58 (3), 59, 92
182	$S_3 \times S_3$	36	13600	289, 288 (2), 377 (6)	40 (2), 120
183	$S_3 \times S_3$	36	13600	287 (2), 289, 376 (6)	41 (2), 120
184	$3 : S_3 \cdot 2$	36	13600	289, 473 (9)	42, 120
185	$A_4 \times 3$	36	13600	384, 389 (2), 386, 397 (4)	73, 81 (2), 83 (2), 121
186	$A_4 \times 3$	36	13600	388 (2), 387, 385, 397 (4)	74, 82 (2), 83 (2), 122
187	D_{34}	34	14400	290, 493 (17)	8, 9, 123
188	$2^3 \cdot 2 : 2$	32	2550	311 (3), 312 (3), 291	75, 102 (4), 129 (3)
189	$D_8 \times 2 : 2$	32	2550	292, 313 (3), 314 (3)	76, 103 (4), 126 (3)
190	2^5	32	1530	315 (5), 316 (5), 317 (10), 318 (5), 319 (5), 292	77, 124, 126 (5), 127 (5)

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Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
191	2^5	32	1530	320 (5), 321 (5), 322 (10), 323 (5), 324 (5), 291	78, 125, 128 (5), 129 (5)
192	$D_8 \times 2 : 2$	32	7650	292, 325, 326, 327, 328, 329, 330	79, 126, 127 (2)
193	$2^3 \cdot 2 : 2$	32	7650	331, 332, 333, 334, 335, 336, 291	80, 128 (2), 129
194	$D_8 \times 2^2$	32	15300	306, 337, 338, 339, 340, 341, 342, 343, 293, 301, 304, 302, 305, 303, 299	104 (2), 136
195	$D_8 \times 2^2$	32	15300	306, 309, 344, 302, 293, 307, 345, 343, 300, 308, 346, 347, 348, 310, 349	105 (2), 136
196	$D_8 \times 2 : 2$	32	2550	297, 350 (3), 351 (3)	106 (4), 111, 133 (3)
197	2^5	32	1275	321 (6), 323 (6), 300 (6), 352 (3), 320 (3), 340 (6), 298	107 (4), 125, 136 (3), 138 (3)
198	2^5	32	1275	299 (6), 349 (6), 319 (6), 318 (6), 353 (3), 316 (3), 298	108 (4), 124, 136 (3), 137 (3)
199	$D_8 \times 2 : 2$	32	2550	295, 354 (3), 355 (3)	109 (4), 110, 135 (3)
200	$2^2 \times 4 \cdot 2$	32	5100	347 (3)	112, 130
201	2^5	32	2550	315 (6), 349 (6), 296 (6), 353 (3), 317 (3), 318 (3), 319 (3), 297	113, 124, 132 (3), 133 (3)
202	$2^2 \times 4 \cdot 2$	32	5100	339 (3)	114, 131
203	2^5	32	2550	322 (3), 340 (6), 294 (6), 352 (3), 323 (3), 324 (6), 321 (3), 295	115, 125, 134 (3), 135 (3)
204	$D_8 \times 2 : 2$	32	7650	297, 356, 357, 358, 359, 360, 361	116, 132 (2), 133
205	$2 \times 4 : 2 : 2$	32	7650	295, 362, 363, 364, 365, 366, 367	117, 134 (2), 135
206	$D_8 \times 2^2$	32	3825	364 (2), 363 (2), 306 (4), 314 (2), 368, 352, 330 (2), 316	126 (2), 134 (2), 136
207	$2^3 \cdot 2 \times 2$	32	7650	313, 368, 326, 369, 319, 361, 357	126, 132, 137
208	$D_8 \times 2^2$	32	7650	305 (2), 338 (2), 346 (2), 348 (2), 351, 370, 352, 356, 314, 328, 319	126, 133, 136

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<i>continued from previous page</i>					
Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
209	$2 \times 4 : 2 : 2$	32	7650	317, 328, 330, 360, 326, 313, 358	126, 127, 132
210	$D_8 \times 2 : 2$	32	7650	317, 326, 325, 357, 314 (2), 351	126 (2), 133
211	$2 \times 4 : 2 : 2$	32	7650	315, 330, 357 (2), 356, 358, 313	126, 132 (2)
212	$D_8 \times 2 : 2$	32	7650	315, 327, 360, 361, 351 (2), 314	126, 133 (2)
213	$2^3 \cdot 2 \times 2$	32	7650	313, 370, 327, 369, 316, 325, 326	126, 127, 137
214	$2^2 \times 4 : 2$	32	7650	360, 325, 357, 313, 318, 370, 368	126, 132, 137
215	$D_8 \times 2^2$	32	7650	344 (2), 342 (2), 345 (2), 304 (2), 352, 358, 351, 369, 314, 329, 318	126, 133, 136
216	$D_8 \times 2 : 2$	32	7650	317, 356, 325, 329, 330, 361, 313	126, 127, 132
217	$D_8 \times 2 : 2$	32	7650	315, 350, 325, 361, 328, 358, 359	127, 132, 133
218	$D_8 \times 2 : 2$	32	7650	317, 327 (2), 350, 329, 328, 359	127 (2), 133
219	$D_8 \times 2^2$	32	7650	309 (2), 341 (2), 318, 307 (2), 328, 369, 301 (2), 356, 359, 320, 330	127, 132, 136
220	$D_8 \times 2^2$	32	7650	337 (2), 303 (2), 308 (2), 310 (2), 359, 370, 319, 330, 358, 329, 320	127, 132, 136
221	$2 \times 4 : 2 : 2$	32	7650	315, 326, 359, 356, 360, 329, 350	127, 132, 133
222	$2 \times 4 : 2 \times 2$	32	7650	327, 350, 318, 371, 326, 370, 361	127, 133, 137
223	$2^2 \times 4 : 2$	32	7650	350, 369, 319, 325, 360, 327, 371	127, 133, 137
224	$D_8 \times 2^2$	32	3825	343 (4), 331 (2), 333 (2), 328 (2), 329 (2), 316, 320, 371	127 (2), 128 (2), 136
225	$2^4 : 2$	32	7650	331, 322, 366, 336 (2), 333, 354	128 (2), 135
226	$2 \times 4 : 2 : 2$	32	7650	331, 312, 335, 334, 363, 322, 367	128, 129, 134

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<i>continued from previous page</i>					
Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
227	$2^3 \cdot 2 : 2$	32	7650	331, 365, 366, 332, 363, 354, 324	128, 134, 135
228	$2^2 \times 4 : 2$	32	7650	354, 336, 365, 334, 321, 372, 371	128, 135, 138
229	$2^2 \times 4 : 2$	32	7650	334, 312, 332, 336, 320, 373, 372	128, 129, 138
230	$2^2 \times 4 : 2$	32	7650	367, 332, 354, 336, 323, 373, 371	128, 135, 138
231	$2^3 \cdot 2 : 2$	32	7650	333, 354, 364, 334, 366, 367, 324	128, 134, 135
232	$2^3 \cdot 2 : 2$	32	7650	333, 365, 364, 312, 335, 332, 322	128, 129, 134
233	$D_8 \times 2^2$	32	7650	321, 335, 345 (2), 307 (2), 366, 373, 305 (2), 303 (2), 364, 331, 316	128, 134, 136
234	$D_8 \times 2^2$	32	7650	346 (2), 301 (2), 304 (2), 308 (2), 323, 333, 363, 372, 366, 335, 316	128, 134, 136
235	$2^3 \cdot 2 : 2$	32	7650	335, 362 (2), 364, 312, 363, 324	129, 134 (2)
236	$2^3 \cdot 2 : 2$	32	7650	311 (2), 362, 355, 332, 334, 322	129 (2), 135
237	$2^4 \cdot 2$	32	7650	321, 368, 362, 312, 367, 372, 332	129, 134, 138
238	$2^3 \cdot 2 : 2$	32	7650	311, 365, 355 (2), 336, 367, 324	129, 135 (2)
239	$D_8 \times 2^2$	32	3825	302 (4), 356 (2), 358 (2), 311 (2), 368, 353, 335 (2), 320	129 (2), 132 (2), 136
240	$D_8 \times 2^2$	32	7650	321, 373, 344 (2), 311, 338 (2), 337 (2), 355, 309 (2), 353, 333, 363	129, 135, 136
241	$2^3 \cdot 2 \times 2$	32	7650	362, 373, 365, 368, 323, 312, 334	129, 134, 138
242	$D_8 \times 2^2$	32	7650	348 (2), 310 (2), 342 (2), 341 (2), 364, 372, 355, 353, 323, 311, 331	129, 135, 136

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<i>continued from previous page</i>					
Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
243	$2^3 \times 4$	32	3825	369 (2), 339 (2), 371, 368, 373 (2), 370 (2), 372 (2), 298, 347 (2)	130, 131, 136, 137 (2), 138 (2)
244	$2^4 \cdot 2$	32	7650	353, 350, 360, 370, 361, 357, 369	132, 133, 137
245	$D_8 \times 2^2$	32	3825	293 (4), 355 (2), 366 (2), 352, 359 (2), 351 (2), 371, 353	133 (2), 135 (2), 136
246	$2^4 \cdot 2$	32	7650	352, 373, 354, 365, 362, 372, 367	134, 135, 138
247	D_{30}	30	16320	374, 395 (3), 463 (5)	8, 139
248	D_{30}	30	16320	375, 394 (3), 464 (5)	9, 140
249	$15 : 2$	30	16320	374, 390, 467 (5)	34 (2), 74, 92 (2), 139
250	$15 : 2$	30	16320	375, 391, 468 (5)	35 (2), 73, 91 (2), 140
251	$S_3 \times 5$	30	16320	375, 392 (3), 465	49, 140
252	$S_3 \times 5$	30	16320	374, 393 (3), 466	50, 139
253	5^2	25	4896	470 (2), 469 (2), 471 (2)	149 (2), 150 (2), 151
254	$2^2 : S_3$	24	10200	382, 401 (3), 463 (4)	42 (2), 117, 152, 174, 175
255	$2^2 : S_3$	24	10200	383, 401 (3), 464 (4)	42 (2), 116, 153, 168, 170
256	$S_3 \times 2^2$	24	13600	377 (3), 378 (3), 386, 399 (3)	56 (3), 57, 104 (3), 121
257	$S_3 \times 2^2$	24	13600	376 (3), 379 (3), 387, 400 (3)	58 (3), 59, 105 (3), 122
258	$A_4 \times 2$	24	20400	380, 402, 467 (4)	87, 102 (2), 108, 109 (2), 158
259	$A_4 \times 2$	24	20400	381, 403, 468 (4)	88, 103 (2), 106 (2), 107, 156
260	$2^2 : S_3$	24	10200	382, 404 (3), 466 (4)	89 (4), 110, 152, 176, 177
261	$2^2 : S_3$	24	10200	383, 405 (3), 465 (4)	90 (4), 111, 153, 171, 172
262	$A_4 \times 2$	24	20400	384, 399, 468 (4)	91 (2), 93, 107, 121 (2), 157
263	$A_4 \times 2$	24	20400	385, 400, 467 (4)	92 (2), 94, 108, 122 (2), 159
264	$A_4 \times 2$	24	20400	381, 406, 468 (4)	95, 107, 156
265	$A_4 \times 2$	24	20400	381, 407, 468 (4)	96, 107, 156
266	$A_4 \times 2$	24	20400	380, 408, 467 (4)	97, 108, 158
267	$A_4 \times 2$	24	20400	380, 409, 467 (4)	98, 108, 158
268	$A_4 \times 2$	24	20400	388, 410, 468 (4)	107, 112, 113, 164

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<i>continued from previous page</i>					
Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
269	$A_4 \times 2$	24	20400	389, 411, 467 (4)	108, 114, 115, 166
270	$A_4 \times 2$	24	10200	383, 412, 468 (4)	113, 165, 170, 172
271	$A_4 \times 2$	24	10200	383, 413, 468 (4)	113, 165, 168, 171
272	$A_4 \times 2$	24	10200	383, 414, 468 (4)	113, 153, 165, 169
273	$A_4 \times 2$	24	10200	382, 415, 467 (4)	115, 167, 174, 176
274	$A_4 \times 2$	24	10200	382, 416, 467 (4)	115, 152, 167, 173
275	$A_4 \times 2$	24	10200	382, 417, 467 (4)	115, 167, 175, 177
276	$2^2 : S_3$	24	10200	383, 418 (3), 464 (4)	116, 168, 169, 172
277	$2^2 : S_3$	24	10200	383, 419 (3), 464 (4)	116, 169, 170, 171
278	$2^2 : S_3$	24	10200	382, 420 (3), 463 (4)	117, 173, 175, 176
279	$2^2 : S_3$	24	10200	382, 421 (3), 463 (4)	117, 173, 174, 177
280	2×10	20	8160	392 (3), 474	43, 145, 180
281	2×10	20	8160	393 (3), 475	44, 146, 181
282	D_{20}	20	24480	394, 392, 391, 476 (5)	45, 88, 93, 99 (2), 140 (2), 180
283	D_{20}	20	24480	392, 394 (2), 477 (5)	46, 95, 96, 180
284	D_{20}	20	24480	395 (2), 393, 478 (5)	47, 97, 98, 181
285	D_{20}	20	24480	390, 393, 395, 479 (5)	48, 87, 94, 100 (2), 139 (2), 181
286	$D_{10} \cdot 2$	20	48960	396, 473 (5)	89, 90, 101
287	$S_3 \times 3$	18	27200	397, 466, 467 (3)	51 (2), 74, 122 (2), 183
288	$S_3 \times 3$	18	27200	397, 465, 468 (3)	52 (2), 73, 121 (2), 182
289	$3 : S_3$	18	13600	397, 463 (6), 464 (6)	182, 183, 184
290	17	17	14400	496	187
291	2^4	16	510	422 (15)	118, 154 (4), 188 (5), 191 (3), 193 (15)
292	2^4	16	510	423 (15)	119, 155 (4), 189 (5), 190 (3), 192 (15)
293	$D_8 \times 2$	16	15300	416, 404, 398, 424, 405, 401, 414	152 (2), 153 (2), 194, 195, 245
294	2^4	16	5100	425 (3), 426 (3), 399 (3), 427 (3), 403, 407, 406	156 (4), 203 (3)
295	2^4	16	850	428 (9), 399 (6)	157 (8), 162 (4), 178, 199 (3), 203 (3), 205 (9)
296	2^4	16	5100	429 (3), 430 (3), 400 (3), 431 (3), 409, 402, 408	158 (4), 201 (3)

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Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
297	2^4	16	850	432 (9), 400 (6)	159 (8), 160 (4), 179, 196 (3), 201 (3), 204 (9)
298	2^4	16	425	410 (3), 433 (9), 411 (3)	161 (4), 163 (4), 164 (16), 166 (16), 197 (3), 198 (3), 243 (9)
299	2^4	16	2550	434 (3), 411 (3), 435 (3), 436 (3), 412, 414, 413	165 (4), 194 (6), 198 (3)
300	2^4	16	2550	437 (3), 438 (3), 410 (3), 439 (3), 415, 417, 416	167 (4), 195 (6), 197 (3)
301	$D_8 \times 2$	16	15300	418, 420, 401, 440, 413, 441, 442	168 (2), 194, 219, 234
302	$D_8 \times 2$	16	15300	438, 414, 443, 418, 419, 444, 445	169 (2), 194, 195, 239
303	$D_8 \times 2$	16	15300	446, 447, 421, 448, 401, 419, 412	170 (2), 194, 220, 233
304	$D_8 \times 2$	16	15300	449, 441, 427, 450, 405, 419, 413	171 (2), 194, 215, 234
305	$D_8 \times 2$	16	15300	425, 451, 452, 448, 405, 418, 412	172 (2), 194, 208, 233
306	$D_8 \times 2$	16	15300	416, 420, 449, 444, 452, 421, 435	173 (2), 194, 195, 206
307	$D_8 \times 2$	16	15300	451, 418, 453, 454, 421, 415, 401	174 (2), 195, 219, 233
308	$D_8 \times 2$	16	15300	455, 417, 450, 401, 420, 456, 419	175 (2), 195, 220, 234
309	$D_8 \times 2$	16	15300	430, 454, 420, 404, 440, 415, 445	176 (2), 195, 219, 240
310	$D_8 \times 2$	16	15300	431, 456, 443, 447, 404, 417, 421	177 (2), 195, 220, 242
311	$D_8 \times 2$	16	7650	402, 457, 445 (2), 443 (2), 422	188, 236 (2), 238, 239, 240, 242
312	$2 \times 4 : 2$	16	7650	422, 457 (2)	188, 226, 229, 232, 235, 237, 241
313	$2 \times 4 : 2$	16	7650	423, 458 (2)	189, 207, 209, 211, 213, 214, 216
314	$D_8 \times 2$	16	7650	452 (2), 449 (2), 423, 458, 403	189, 206, 208, 210 (2), 212, 215
315	2^4	16	7650	431 (2), 455 (2), 453 (2), 430 (2), 429 (4), 432 (2), 423	190, 201 (2), 211, 212, 217, 221

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<i>continued from previous page</i>					
Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
316	2^4	16	3825	435 (2), 455 (2), 412 (2), 413 (2), 453 (2), 433, 423 (2), 459 (2)	190 (2), 198, 206, 213 (2), 224, 233 (2), 234 (2)
317	2^4	16	7650	408 (2), 409 (2), 455 (2), 453 (2), 423 (2), 459 (2), 429 (2), 432	190 (2), 201, 209, 210, 216, 218
318	2^4	16	7650	434, 409 (2), 436 (2), 413, 430, 453, 432, 429 (2), 435 (2), 433, 423	190, 198, 201, 214, 215, 219, 222
319	2^4	16	7650	435 (2), 429 (2), 412, 431, 436, 455, 408 (2), 432, 433, 434 (2), 423	190, 198, 201, 207, 208, 220, 223
320	2^4	16	3825	442 (2), 433, 422 (2), 438 (2), 460 (2), 415 (2), 446 (2), 417 (2)	191 (2), 197, 219 (2), 220 (2), 224, 229 (2), 239
321	2^4	16	7650	446, 433, 422, 439 (2), 406 (2), 438 (2), 426 (2), 415, 425, 437, 428	191, 197, 203, 228, 233, 237, 240
322	2^4	16	7650	460 (2), 422 (2), 407 (2), 446 (2), 406 (2), 442 (2), 426 (2), 428	191 (2), 203, 225, 226, 232, 236
323	2^4	16	7650	407 (2), 437 (2), 442, 438 (2), 422, 433, 426 (2), 417, 428, 427, 439	191, 197, 203, 230, 234, 241, 242
324	2^4	16	7650	442 (2), 426 (4), 446 (2), 428 (2), 425 (2), 422, 427 (2)	191, 203 (2), 227, 231, 235, 238
325	$2 \times 4 : 2$	16	7650	423, 458, 461	192, 210, 213, 214, 216, 217, 223
326	$2 \times 4 : 2$	16	7650	423, 461, 458	192, 207, 209, 210, 213, 221, 222
327	$2 \times 4 : 2$	16	7650	423, 461 (2)	192, 212, 213, 218 (2), 222, 223
328	$D_8 \times 2$	16	7650	451 (2), 440 (2), 423, 461, 460	192, 208, 209, 217, 218, 219, 224
329	$D_8 \times 2$	16	7650	447 (2), 450 (2), 423, 461, 460	192, 215, 216, 218, 220, 221, 224
330	$D_8 \times 2$	16	7650	421 (2), 420 (2), 423, 458, 460	192, 206, 209, 211, 216, 219, 220

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<i>continued from previous page</i>					
Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
331	$D_8 \times 2$	16	7650	447 (2), 451 (2), 459, 462, 422	193, 224, 225, 226, 227, 233, 242
332	$2 \times 4 : 2$	16	7650	422, 462, 457	193, 227, 229, 230, 232, 236, 237
333	$D_8 \times 2$	16	7650	440 (2), 450 (2), 459, 462, 422	193, 224, 225, 231, 232, 234, 240
334	$2 \times 4 : 2$	16	7650	422, 462, 457	193, 226, 228, 229, 231, 236, 241
335	$D_8 \times 2$	16	7650	418 (2), 419 (2), 459, 457, 422	193, 226, 232, 233, 234, 235, 239
336	$2 \times 4 : 2$	16	7650	422, 462 (2)	193, 225 (2), 228, 229, 230, 238
337	$D_8 \times 2$	16	15300	450, 446, 420, 448, 436, 443, 404	194, 220, 240
338	$D_8 \times 2$	16	15300	398, 440, 449, 445, 425, 448, 436	194, 208, 240
339	$2^2 \times 4$	16	7650	424, 441 (2), 444, 448 (2), 411	194 (2), 202 (2), 243
340	2^4	16	7650	399 (2), 439 (2), 426 (2), 437 (2), 416, 442, 427, 438, 425, 446, 411	194 (2), 197, 203 (2)
341	$D_8 \times 2$	16	15300	404, 445, 442, 441, 421, 434, 451	194, 219, 242
342	$D_8 \times 2$	16	15300	398, 441, 427, 443, 452, 447, 434	194, 215, 242
343	$D_8 \times 2$	16	15300	450, 447, 440, 451, 435, 438, 424	194, 195, 224
344	$D_8 \times 2$	16	15300	449, 443, 450, 398, 430, 454, 437	195, 215, 240
345	$D_8 \times 2$	16	15300	452, 419, 447, 405, 453, 454, 437	195, 215, 233
346	$D_8 \times 2$	16	15300	449, 418, 440, 405, 455, 456, 439	195, 208, 234
347	$2^2 \times 4$	16	7650	444, 454 (2), 424, 456 (2), 410	195 (2), 200 (2), 243
348	$D_8 \times 2$	16	15300	452, 445, 451, 398, 431, 456, 439	195, 208, 242
349	2^4	16	7650	434 (2), 400 (2), 436 (2), 429 (2), 435, 430, 414, 453, 410, 455, 431	195 (2), 198, 201 (2)

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<i>continued from previous page</i>					
Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
350	$2 \times 4 : 2$	16	7650	432, 461 (2)	196, 217, 218, 221, 222, 223, 244
351	$D_8 \times 2$	16	7650	405 (2), 398 (2), 432, 461, 403	196, 208, 210, 212 (2), 215, 245
352	2^4	16	3825	428 (2), 403, 460, 439 (2), 437 (2), 427 (2), 416 (2), 425 (2), 433	197, 203 (2), 206, 208 (2), 215 (2), 245, 246 (2)
353	2^4	16	3825	434 (2), 430 (2), 436 (2), 431 (2), 414 (2), 432 (2), 402, 459, 433	198, 201 (2), 239, 240 (2), 242 (2), 244 (2), 245
354	$2 \times 4 : 2$	16	7650	428, 462 (2)	199, 225, 227, 228, 230, 231, 246
355	$D_8 \times 2$	16	7650	398 (2), 404 (2), 402, 462, 428	199, 236, 238 (2), 240, 242, 245
356	$D_8 \times 2$	16	7650	445 (2), 418 (2), 432, 458, 460	204, 208, 211, 216, 219, 221, 239
357	$2 \times 4 : 2$	16	7650	432, 458 (2)	204, 207, 210, 211 (2), 214, 244
358	$D_8 \times 2$	16	7650	443 (2), 419 (2), 432, 458, 460	204, 209, 211, 215, 217, 220, 239
359	$D_8 \times 2$	16	7650	404 (2), 401 (2), 432, 460, 461	204, 217, 218, 219, 220, 221, 245
360	$2 \times 4 : 2$	16	7650	432, 458, 461	204, 209, 212, 214, 221, 223, 244
361	$2 \times 4 : 2$	16	7650	432, 458, 461	204, 207, 212, 216, 217, 222, 244
362	$2 \times 4 : 2$	16	7650	428, 457 (2)	205, 235 (2), 236, 237, 241, 246
363	$D_8 \times 2$	16	7650	449 (2), 420 (2), 459, 428, 457	205, 206, 226, 227, 234, 235, 240
364	$D_8 \times 2$	16	7650	421 (2), 459, 457, 452 (2), 428	205, 206, 231, 232, 233, 235, 242
365	$2 \times 4 : 2$	16	7650	428, 457, 462	205, 227, 228, 232, 238, 241, 246
366	$D_8 \times 2$	16	7650	405 (2), 401 (2), 459, 462, 428	205, 225, 227, 231, 233, 234, 245
367	$2 \times 4 : 2$	16	7650	428, 457, 462	205, 226, 230, 231, 237, 238, 246
368	$2^2 \times 4$	16	3825	457 (2), 444 (2), 458 (2), 433	206, 207 (2), 214 (2), 237 (2), 239, 241 (2), 243

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<i>continued from previous page</i>					
Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
369	$2^2 \times 4$	16	7650	454 (2), 441 (2), 433, 461, 458	207, 213, 215, 219, 223, 243, 244
370	$2^2 \times 4$	16	7650	448 (2), 456 (2), 458, 461, 433	208, 213, 214, 220, 222, 243, 244
371	$2^2 \times 4$	16	3825	462 (2), 424 (2), 461 (2), 433	222 (2), 223 (2), 224, 228 (2), 230 (2), 243, 245
372	$2^2 \times 4$	16	7650	456 (2), 441 (2), 462, 457, 433	228, 229, 234, 237, 242, 243, 246
373	$2^2 \times 4$	16	7650	448 (2), 454 (2), 457, 462, 433	229, 230, 233, 240, 241, 243, 246
374	15	15	16320	469, 491	54 (2), 146 (2), 247, 249, 252
375	15	15	16320	470, 492	55 (2), 145 (2), 248, 250, 251
376	D_{12}	12	40800	463, 467, 466, 479 (3)	87, 89 (2), 94, 139 (2), 152, 176, 177, 183 (2), 257
377	D_{12}	12	40800	468, 464, 465, 476 (3)	88, 90 (2), 93, 140 (2), 153, 171, 172, 182 (2), 256
378	D_{12}	12	40800	464 (2), 468, 477 (3)	95, 96, 168, 169, 170, 256
379	D_{12}	12	40800	467, 463 (2), 478 (3)	97, 98, 173, 174, 175, 257
380	A_4	12	20400	480, 491 (4)	141, 154 (2), 162 (2), 163, 258, 266, 267
381	A_4	12	20400	481, 492 (4)	142, 155 (2), 160 (2), 161, 259, 264, 265
382	A_4	12	10200	482, 491 (4)	143 (4), 178, 254, 260, 273, 274, 275, 278, 279
383	A_4	12	10200	483, 492 (4)	144 (4), 179, 255, 261, 270, 271, 272, 276, 277
384	A_4	12	1360	474, 492 (4)	145 (6), 147, 161 (5), 185 (10), 262 (15)
385	A_4	12	1360	475, 491 (4)	146 (6), 148, 163 (5), 186 (10), 263 (15)
386	2×6	12	13600	468 (3), 474	156 (6), 157 (2), 164 (2), 165 (3), 185, 256
387	2×6	12	13600	467 (3), 475	158 (6), 159 (2), 166 (2), 167 (3), 186, 257

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<i>continued from previous page</i>					
Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
388	A_4	12	6800	475, 492 (4)	160 (4), 161, 179, 186 (4), 268 (3)
389	A_4	12	6800	474, 491 (4)	162 (4), 163, 178, 185 (4), 269 (3)
390	D_{10}	10	1632	469, 494 (5)	75 (5), 148, 150 (6), 249 (10), 285 (15)
391	D_{10}	10	1632	470, 495 (5)	76 (5), 147, 149 (6), 250 (10), 282 (15)
392	10	10	24480	470, 495	77, 149 (2), 251 (2), 280, 282, 283
393	10	10	24480	469, 494	78, 150 (2), 252 (2), 281, 284, 285
394	D_{10}	10	24480	470, 493 (5)	79, 142, 151 (2), 248 (2), 282, 283 (2)
395	D_{10}	10	24480	469, 493 (5)	80, 141, 151 (2), 247 (2), 284 (2), 285
396	D_{10}	10	48960	471, 493 (5)	143, 144, 151, 286
397	3^2	9	13600	491 (2), 492 (2)	185 (4), 186 (4), 287 (2), 288 (2), 289
398	D_8	8	15300	476, 473, 479	60 (8), 120 (8), 293, 338, 342, 344, 348, 351, 355
399	2^3	8	5100	476 (3), 477 (3), 474	180 (8), 256 (8), 262 (4), 294 (3), 295, 340 (3)
400	2^3	8	5100	478 (3), 479 (3), 475	181 (8), 257 (8), 263 (4), 296 (3), 297, 349 (3)
401	D_8	8	15300	483, 473, 482	254 (2), 255 (2), 293, 301, 303, 307, 308, 359, 366
402	2^3	8	1275	479 (6), 480	258 (16), 296 (4), 311 (6), 353 (3), 355 (6)
403	2^3	8	1275	476 (6), 481	259 (16), 294 (4), 314 (6), 351 (6), 352 (3)
404	D_8	8	15300	479, 473, 482	260 (2), 293, 309, 310, 337, 341, 355, 359
405	D_8	8	15300	476, 473, 483	261 (2), 293, 304, 305, 345, 346, 351, 366

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<i>continued from previous page</i>					
Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
406	2^3	8	5100	484 (3), 477 (3), 481	264 (4), 294, 321 (3), 322 (3)
407	2^3	8	5100	477 (3), 485 (3), 481	265 (4), 294, 322 (3), 323 (3)
408	2^3	8	5100	486 (3), 478 (3), 480	266 (4), 296, 317 (3), 319 (3)
409	2^3	8	5100	478 (3), 487 (3), 480	267 (4), 296, 317 (3), 318 (3)
410	2^3	8	1275	488 (3), 489 (3), 475	268 (16), 298, 300 (6), 347 (6), 349 (6)
411	2^3	8	1275	489 (3), 490 (3), 474	269 (16), 298, 299 (6), 339 (6), 340 (6)
412	2^3	8	2550	486 (3), 490 (3), 483	270 (4), 299, 303 (6), 305 (6), 316 (3), 319 (3)
413	2^3	8	2550	490 (3), 487 (3), 483	271 (4), 299, 301 (6), 304 (6), 316 (3), 318 (3)
414	2^3	8	2550	479 (3), 489 (3), 483	272 (4), 293 (6), 299, 302 (6), 349 (3), 353 (3)
415	2^3	8	2550	484 (3), 488 (3), 482	273 (4), 300, 307 (6), 309 (6), 320 (3), 321 (3)
416	2^3	8	2550	489 (3), 476 (3), 482	274 (4), 293 (6), 300, 306 (6), 340 (3), 352 (3)
417	2^3	8	2550	485 (3), 488 (3), 482	275 (4), 300, 308 (6), 310 (6), 320 (3), 323 (3)
418	D_8	8	15300	483, 472, 484	276 (2), 301, 302, 305, 307, 335, 346, 356
419	D_8	8	15300	483, 472, 485	277 (2), 302, 303, 304, 308, 335, 345, 358
420	D_8	8	15300	487, 472, 482	278 (2), 301, 306, 308, 309, 330, 337, 363
421	D_8	8	15300	486, 472, 482	279 (2), 303, 306, 307, 310, 330, 341, 364

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<i>continued from previous page</i>					
Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
422	2^3	8	7650	484 (3), 480, 485 (3)	291, 311, 312, 320, 321, 322 (2), 323, 324, 331, 332, 333, 334, 335, 336
423	2^3	8	7650	486 (3), 481, 487 (3)	292, 313, 314, 315, 316, 317 (2), 318, 319, 325, 326, 327, 328, 329, 330
424	2×4	8	7650	473 (2), 489	293 (2), 339, 343 (2), 347, 371
425	2^3	8	7650	477 (2), 490, 476 (3), 484	294 (2), 305 (2), 321, 324 (2), 338 (2), 340, 352
426	2^3	8	15300	477 (3), 490, 476, 485, 484	294, 321, 322, 323, 324 (2), 340
427	2^3	8	7650	477 (2), 476 (3), 490, 485	294 (2), 304 (2), 323, 324 (2), 340, 342 (2), 352
428	2^3	8	7650	477 (4), 480, 482, 476	295, 321, 322, 323, 324 (2), 352, 354, 355, 362, 363, 364, 365, 366, 367
429	2^3	8	15300	488, 478 (3), 487, 479, 486	296, 315 (2), 317, 318, 319, 349
430	2^3	8	7650	479 (3), 478 (2), 488, 487	296 (2), 309 (2), 315 (2), 318, 344 (2), 349, 353
431	2^3	8	7650	488, 479 (3), 478 (2), 486	296 (2), 310 (2), 315 (2), 319, 348 (2), 349, 353
432	2^3	8	7650	481, 478 (4), 483, 479	297, 315 (2), 317, 318, 319, 350, 351, 353, 356, 357, 358, 359, 360, 361
433	2^3	8	3825	490 (2), 488 (2), 489, 481, 480	298, 316, 318 (2), 319 (2), 320, 321 (2), 323 (2), 352, 353, 368, 369 (2), 370 (2), 371, 372 (2), 373 (2)

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<i>continued from previous page</i>					
Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
434	2^3	8	7650	478 (2), 489 (2), 486, 479, 490	299, 318, 319 (2), 341 (2), 342 (2), 349 (2), 353
435	2^3	8	7650	490 (2), 478 (2), 486, 489, 487	299, 306 (2), 316, 318 (2), 319 (2), 343 (2), 349
436	2^3	8	7650	478 (2), 489 (2), 490, 479, 487	299, 318 (2), 319, 337 (2), 338 (2), 349 (2), 353
437	2^3	8	7650	489 (2), 477 (2), 488, 485, 476	300, 321, 323 (2), 340 (2), 344 (2), 345 (2), 352
438	2^3	8	7650	488 (2), 477 (2), 484, 485, 489	300, 302 (2), 320, 321 (2), 323 (2), 340, 343 (2)
439	2^3	8	7650	489 (2), 477 (2), 484, 488, 476	300, 321 (2), 323, 340 (2), 346 (2), 348 (2), 352
440	D_8	8	15300	487, 473, 484	301, 309, 328, 333, 338, 343, 346
441	2×4	8	15300	472, 473, 490	301, 304, 339, 341, 342, 369, 372
442	2^3	8	7650	477 (2), 485 (2), 484, 482, 490	301 (2), 320, 322 (2), 323, 324 (2), 340, 341 (2)
443	D_8	8	15300	479, 472, 485	302, 310, 311, 337, 342, 344, 358
444	2×4	8	7650	489, 472 (2)	302 (2), 306 (2), 339, 347, 368
445	D_8	8	15300	479, 472, 484	302, 309, 311, 338, 341, 348, 356
446	2^3	8	7650	484 (2), 477 (2), 482, 485, 490	303 (2), 320, 321, 322 (2), 324 (2), 337 (2), 340
447	D_8	8	15300	486, 485, 473	303, 310, 329, 331, 342, 343, 345
448	2×4	8	15300	473, 472, 490	303, 305, 337, 338, 339, 370, 373
449	D_8	8	15300	487, 472, 476	304, 306, 314, 338, 344, 346, 363
450	D_8	8	15300	487, 485, 473	304, 308, 329, 333, 337, 343, 344

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<i>continued from previous page</i>					
Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
451	D_8	8	15300	486, 484, 473	305, 307, 328, 331, 341, 343, 348
452	D_8	8	15300	486, 472, 476	305, 306, 314, 342, 345, 348, 364
453	2^3	8	7650	487 (2), 478 (2), 486, 488, 483	307 (2), 315 (2), 316, 317 (2), 318, 345 (2), 349
454	2×4	8	15300	472, 488, 473	307, 309, 344, 345, 347, 369, 373
455	2^3	8	7650	478 (2), 486 (2), 487, 488, 483	308 (2), 315 (2), 316, 317 (2), 319, 346 (2), 349
456	2×4	8	15300	488, 473, 472	308, 310, 346, 347, 348, 370, 372
457	2×4	8	7650	472 (2), 480	311, 312 (2), 332, 334, 335, 362 (2), 363, 364, 365, 367, 368, 372, 373
458	2×4	8	7650	472 (2), 481	313 (2), 314, 325, 326, 330, 356, 357 (2), 358, 360, 361, 368, 369, 370
459	2^3	8	3825	483 (2), 486 (2), 480, 487 (2)	316 (2), 317 (4), 331 (2), 333 (2), 335 (2), 353, 363 (2), 364 (2), 366 (2)
460	2^3	8	3825	482 (2), 485 (2), 484 (2), 481	320 (2), 322 (4), 328 (2), 329 (2), 330 (2), 352, 356 (2), 358 (2), 359 (2)
461	2×4	8	7650	473 (2), 481	325, 326, 327 (2), 328, 329, 350 (2), 351, 359, 360, 361, 369, 370, 371
462	2×4	8	7650	473 (2), 480	331, 332, 333, 334, 336 (2), 354 (2), 355, 365, 366, 367, 371, 372, 373
463	S_3	6	40800	491, 493 (3)	141, 143 (2), 247 (2), 254, 278, 279, 289 (2), 376, 379 (2)

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<i>continued from previous page</i>					
Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
464	S_3	6	40800	492, 493 (3)	142, 144 (2), 248 (2), 255, 276, 277, 289 (2), 377, 378 (2)
465	S_3	6	2720	492, 495 (3)	147, 251 (6), 261 (15), 288 (10), 377 (15)
466	S_3	6	2720	491, 494 (3)	148, 252 (6), 260 (15), 287 (10), 376 (15)
467	6	6	40800	491, 494	249 (2), 258 (2), 263 (2), 266 (2), 267 (2), 269 (2), 273, 274, 275, 287 (2), 376, 379, 387
468	6	6	40800	492, 495	250 (2), 259 (2), 262 (2), 264 (2), 265 (2), 268 (2), 270, 271, 272, 288 (2), 377, 378, 386
469	5	5	1632	496	118 (5), 253 (6), 374 (10), 390, 393 (15), 395 (15)
470	5	5	1632	496	119 (5), 253 (6), 375 (10), 391, 392 (15), 394 (15)
471	5	5	9792	496	253, 396 (5)
472	4	4	15300	493	123 (16), 418, 419, 420, 421, 441, 443, 444, 445, 448, 449, 452, 454, 456, 457, 458
473	4	4	15300	493	184 (8), 286 (16), 398, 401, 404, 405, 424, 440, 441, 447, 448, 450, 451, 454, 456, 461, 462
474	2^2	4	85	495 (3)	280 (96), 384 (16), 386 (160), 389 (80), 399 (60), 411 (15)
475	2^2	4	85	494 (3)	281 (96), 385 (16), 387 (160), 388 (80), 400 (60), 410 (15)
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Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
476	2^2	4	7650	495 (2), 493	282 (16), 377 (16), 398 (2), 399 (2), 403, 405 (2), 416, 425 (3), 426 (2), 427 (3), 428, 437, 439, 449 (2), 452 (2)
477	2^2	4	15300	493 (2), 495	283 (8), 378 (8), 399, 406, 407, 425, 426 (3), 427, 428 (2), 437, 438, 439, 442, 446
478	2^2	4	15300	493 (2), 494	284 (8), 379 (8), 400, 408, 409, 429 (3), 430, 431, 432 (2), 434, 435, 436, 453, 455
479	2^2	4	7650	493, 494 (2)	285 (16), 376 (16), 398 (2), 400 (2), 402, 404 (2), 414, 429 (2), 430 (3), 431 (3), 432, 434, 436, 443 (2), 445 (2)
480	2^2	4	1275	493 (3)	380 (16), 402, 408 (4), 409 (4), 422 (6), 428 (6), 433 (3), 457 (6), 459 (3), 462 (6)
481	2^2	4	1275	493 (3)	381 (16), 403, 406 (4), 407 (4), 423 (6), 432 (6), 433 (3), 458 (6), 460 (3), 461 (6)
482	2^2	4	2550	493 (3)	382 (4), 401 (6), 404 (6), 415, 416, 417, 420 (6), 421 (6), 428 (3), 442 (3), 446 (3), 460 (3)
483	2^2	4	2550	493 (3)	383 (4), 401 (6), 405 (6), 412, 413, 414, 418 (6), 419 (6), 432 (3), 453 (3), 455 (3), 459 (3)

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<i>continued from previous page</i>					
Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
484	2^2	4	7650	493 (3)	406 (2), 415, 418 (2), 422 (3), 425, 426 (2), 438, 439, 440 (2), 442, 445 (2), 446 (2), 451 (2), 460
485	2^2	4	7650	493 (3)	407 (2), 417, 419 (2), 422 (3), 426 (2), 427, 437, 438, 442 (2), 443 (2), 446, 447 (2), 450 (2), 460
486	2^2	4	7650	493 (3)	408 (2), 412, 421 (2), 423 (3), 429 (2), 431, 434, 435, 447 (2), 451 (2), 452 (2), 453, 455 (2), 459
487	2^2	4	7650	493 (3)	409 (2), 413, 420 (2), 423 (3), 429 (2), 430, 435, 436, 440 (2), 449 (2), 450 (2), 453 (2), 455, 459
488	2^2	4	3825	493 (2), 494	410, 415 (2), 417 (2), 429 (4), 430 (2), 431 (2), 433 (2), 437 (2), 438 (4), 439 (2), 453 (2), 454 (4), 455 (2), 456 (4)
489	2^2	4	3825	493, 495, 494	410, 411, 414 (2), 416 (2), 424 (2), 433, 434 (4), 435 (2), 436 (4), 437 (4), 438 (2), 439 (4), 444 (2)
490	2^2	4	3825	493 (2), 495	411, 412 (2), 413 (2), 425 (2), 426 (4), 427 (2), 433 (2), 434 (2), 435 (4), 436 (2), 441 (4), 442 (2), 446 (2), 448 (4)
491	3	3	2720	496	374 (6), 380 (30), 382 (15), 385 (2), 389 (10), 397 (10), 463 (15), 466, 467 (15)

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Nr.	Structure	Order	Length	Maximal Subgroups	Minimal Overgroups
492	3	3	2720	496	375 (6), 381 (30), 383 (15), 384 (2), 388 (10), 397 (10), 464 (15), 465, 468 (15)
493	2	2	3825	496	187 (64), 394 (32), 395 (32), 396 (64), 463 (32), 464 (32), 472 (4), 473 (4), 476 (2), 477 (8), 478 (8), 479 (2), 480, 481, 482 (2), 483 (2), 484 (6), 485 (6), 486 (6), 487 (6), 488 (2), 489, 490 (2)
494	2	2	255	496	390 (32), 393 (96), 466 (32), 467 (160), 475, 478 (60), 479 (60), 488 (15), 489 (15)
495	2	2	255	496	391 (32), 392 (96), 465 (32), 468 (160), 474, 476 (60), 477 (60), 489 (15), 490 (15)
496	1	1	1		290 (14400), 469 (1632), 470 (1632), 471 (9792), 491 (2720), 492 (2720), 493 (3825), 494 (255), 495 (255)

TABLE 1. Subgroup lattice of $Sp(4, 4)$

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