空间结构计算书

项目名称：福建技师学院石狮（蚶江）校区三期工程23.1KWP光伏发电工程

建施单位：福建石狮产投教育集团有限公司

设计单位：福建省机电沿海建筑设计研究院有限公司

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1. 设计依据

《工程结构通用规范》 （GB55001-2021）

《冷弯薄壁型钢结构技术规范》 (GB50018-2002)

《光伏支架结构设计规程》 (NB/T10115-2018)

《建筑结构荷载规范》 (GB50009-2012)

《建筑抗震设计规范》 (GB50011-2010)(2016年版)

《建筑与市政工程抗震通用规范》 （GB55002-2021）

《建筑地基基础设计规范》 (GB50007-2011)

《建筑结构可靠性设计统一标准》 (GB50068-2018)

1. 软件信息

3D3S Design 2022.4（上海同磊土木工程技术有限公司）

1. 结构信息
   1. 总体信息

节点总数　　　　236

支座总数　　　　56

单元总数　　　　300

材料种类　　　　1

截面种类　　　　3

荷载工况　　　　3

* 1. 几何信息



节点编号图（整体）

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 节点信息表 | | | | | | | | | |
| 节点号 | x坐标(m) | y坐标(m) | z坐标(m) | 备注 | 节点号 | x坐标(m) | y坐标(m) | z坐标(m) | 备注 |
| 1 | 1.609 | 1.316 | 0.405 |  | 2 | 1.609 | -5.376 | 0.405 |  |
| 3 | 1.609 | 0.921 | 0.000 | 支座1 | 4 | 1.609 | 0.921 | 0.405 |  |
| 5 | 1.609 | -0.881 | 0.000 | 支座1 | 6 | 1.609 | -0.881 | 0.405 |  |
| 7 | 1.609 | -3.175 | 0.000 | 支座1 | 8 | 1.609 | -3.175 | 0.405 |  |
| 9 | 1.609 | -4.977 | 0.000 | 支座1 | 10 | 1.609 | -4.977 | 0.405 |  |
| 11 | 4.609 | 1.316 | 0.405 |  | 12 | 4.609 | -5.376 | 0.405 |  |
| 13 | 4.609 | 0.921 | 0.000 | 支座1 | 14 | 4.609 | 0.921 | 0.405 |  |
| 15 | 4.609 | -0.881 | 0.000 | 支座1 | 16 | 4.609 | -0.881 | 0.405 |  |
| 17 | 4.609 | -3.175 | 0.000 | 支座1 | 18 | 4.609 | -3.175 | 0.405 |  |
| 19 | 4.609 | -4.977 | 0.000 | 支座1 | 20 | 4.609 | -4.977 | 0.405 |  |
| 21 | 7.609 | 1.316 | 0.405 |  | 22 | 7.609 | -5.376 | 0.405 |  |
| 23 | 7.609 | 0.921 | 0.000 | 支座1 | 24 | 7.609 | 0.921 | 0.405 |  |
| 25 | 7.609 | -0.881 | 0.000 | 支座1 | 26 | 7.609 | -0.881 | 0.405 |  |
| 27 | 7.609 | -3.175 | 0.000 | 支座1 | 28 | 7.609 | -3.175 | 0.405 |  |
| 29 | 7.609 | -4.977 | 0.000 | 支座1 | 30 | 7.609 | -4.977 | 0.405 |  |
| 31 | 10.609 | 1.316 | 0.405 |  | 32 | 10.609 | -5.376 | 0.405 |  |
| 33 | 10.609 | 0.921 | 0.000 | 支座1 | 34 | 10.609 | 0.921 | 0.405 |  |
| 35 | 10.609 | -0.881 | 0.000 | 支座1 | 36 | 10.609 | -0.881 | 0.405 |  |
| 37 | 10.609 | -3.175 | 0.000 | 支座1 | 38 | 10.609 | -3.175 | 0.405 |  |
| 39 | 10.609 | -4.977 | 0.000 | 支座1 | 40 | 10.609 | -4.977 | 0.405 |  |
| 41 | 13.609 | 1.316 | 0.405 |  | 42 | 13.609 | -5.376 | 0.405 |  |
| 43 | 13.609 | 0.921 | 0.000 | 支座1 | 44 | 13.609 | 0.921 | 0.405 |  |
| 45 | 13.609 | -0.881 | 0.000 | 支座1 | 46 | 13.609 | -0.881 | 0.405 |  |
| 47 | 13.609 | -3.175 | 0.000 | 支座1 | 48 | 13.609 | -3.175 | 0.405 |  |
| 49 | 13.609 | -4.977 | 0.000 | 支座1 | 50 | 13.609 | -4.977 | 0.405 |  |
| 51 | 16.609 | 1.316 | 0.405 |  | 52 | 16.609 | -5.376 | 0.405 |  |
| 53 | 16.609 | 0.921 | 0.000 | 支座1 | 54 | 16.609 | 0.921 | 0.405 |  |
| 55 | 16.609 | -0.881 | 0.000 | 支座1 | 56 | 16.609 | -0.881 | 0.405 |  |
| 57 | 16.609 | -3.175 | 0.000 | 支座1 | 58 | 16.609 | -3.175 | 0.405 |  |
| 59 | 16.609 | -4.977 | 0.000 | 支座1 | 60 | 16.609 | -4.977 | 0.405 |  |
| 61 | 19.609 | 1.316 | 0.405 |  | 62 | 19.609 | -5.376 | 0.405 |  |
| 63 | 19.609 | 0.921 | 0.000 | 支座1 | 64 | 19.609 | 0.921 | 0.405 |  |
| 65 | 19.609 | -0.881 | 0.000 | 支座1 | 66 | 19.609 | -0.881 | 0.405 |  |
| 67 | 19.609 | -3.175 | 0.000 | 支座1 | 68 | 19.609 | -3.175 | 0.405 |  |
| 69 | 19.609 | -4.977 | 0.000 | 支座1 | 70 | 19.609 | -4.977 | 0.405 |  |
| 71 | 22.609 | 1.316 | 0.405 |  | 72 | 22.609 | -5.376 | 0.405 |  |
| 73 | 22.609 | 0.921 | 0.000 | 支座1 | 74 | 22.609 | 0.921 | 0.405 |  |
| 75 | 22.609 | -0.881 | 0.000 | 支座1 | 76 | 22.609 | -0.881 | 0.405 |  |
| 77 | 22.609 | -3.175 | 0.000 | 支座1 | 78 | 22.609 | -3.175 | 0.405 |  |
| 79 | 22.609 | -4.977 | 0.000 | 支座1 | 80 | 22.609 | -4.977 | 0.405 |  |
| 81 | 25.609 | 1.316 | 0.405 |  | 82 | 25.609 | -5.376 | 0.405 |  |
| 83 | 25.609 | 0.921 | 0.000 | 支座1 | 84 | 25.609 | 0.921 | 0.405 |  |
| 85 | 25.609 | -0.881 | 0.000 | 支座1 | 86 | 25.609 | -0.881 | 0.405 |  |
| 87 | 25.609 | -3.175 | 0.000 | 支座1 | 88 | 25.609 | -3.175 | 0.405 |  |
| 89 | 25.609 | -4.977 | 0.000 | 支座1 | 90 | 25.609 | -4.977 | 0.405 |  |
| 91 | 28.609 | 1.316 | 0.405 |  | 92 | 28.609 | -5.376 | 0.405 |  |
| 93 | 28.609 | 0.921 | 0.000 | 支座1 | 94 | 28.609 | 0.921 | 0.405 |  |
| 95 | 28.609 | -0.881 | 0.000 | 支座1 | 96 | 28.609 | -0.881 | 0.405 |  |
| 97 | 28.609 | -3.175 | 0.000 | 支座1 | 98 | 28.609 | -3.175 | 0.405 |  |
| 99 | 28.609 | -4.977 | 0.000 | 支座1 | 100 | 28.609 | -4.977 | 0.405 |  |
| 101 | 31.609 | 1.316 | 0.405 |  | 102 | 31.609 | -5.376 | 0.405 |  |
| 103 | 31.609 | 0.921 | 0.000 | 支座1 | 104 | 31.609 | 0.921 | 0.405 |  |
| 105 | 31.609 | -0.881 | 0.000 | 支座1 | 106 | 31.609 | -0.881 | 0.405 |  |
| 107 | 31.609 | -3.175 | 0.000 | 支座1 | 108 | 31.609 | -3.175 | 0.405 |  |
| 109 | 31.609 | -4.977 | 0.000 | 支座1 | 110 | 31.609 | -4.977 | 0.405 |  |
| 111 | 34.609 | 1.316 | 0.405 |  | 112 | 34.609 | -5.376 | 0.405 |  |
| 113 | 34.609 | 0.921 | 0.000 | 支座1 | 114 | 34.609 | 0.921 | 0.405 |  |
| 115 | 34.609 | -0.881 | 0.000 | 支座1 | 116 | 34.609 | -0.881 | 0.405 |  |
| 117 | 34.609 | -3.175 | 0.000 | 支座1 | 118 | 34.609 | -3.175 | 0.405 |  |
| 119 | 34.609 | -4.977 | 0.000 | 支座1 | 120 | 34.609 | -4.977 | 0.405 |  |
| 121 | 37.609 | 1.316 | 0.405 |  | 122 | 37.609 | -5.376 | 0.405 |  |
| 123 | 37.609 | 0.921 | 0.000 | 支座1 | 124 | 37.609 | 0.921 | 0.405 |  |
| 125 | 37.609 | -0.881 | 0.000 | 支座1 | 126 | 37.609 | -0.881 | 0.405 |  |
| 127 | 37.609 | -3.175 | 0.000 | 支座1 | 128 | 37.609 | -3.175 | 0.405 |  |
| 129 | 37.609 | -4.977 | 0.000 | 支座1 | 130 | 37.609 | -4.977 | 0.405 |  |
| 131 | 40.609 | 1.316 | 0.405 |  | 132 | 40.609 | -5.376 | 0.405 |  |
| 133 | 40.609 | 0.921 | 0.000 | 支座1 | 134 | 40.609 | 0.921 | 0.405 |  |
| 135 | 40.609 | -0.881 | 0.000 | 支座1 | 136 | 40.609 | -0.881 | 0.405 |  |
| 137 | 40.609 | -3.175 | 0.000 | 支座1 | 138 | 40.609 | -3.175 | 0.405 |  |
| 139 | 40.609 | -4.977 | 0.000 | 支座1 | 140 | 40.609 | -4.977 | 0.405 |  |
| 141 | 1.401 | 1.051 | 0.405 |  | 142 | 40.817 | 1.051 | 0.405 |  |
| 143 | 1.401 | -0.523 | 0.405 |  | 144 | 40.817 | -0.523 | 0.405 |  |
| 145 | 1.401 | -1.243 | 0.405 |  | 146 | 40.817 | -1.243 | 0.405 |  |
| 147 | 1.401 | -2.817 | 0.405 |  | 148 | 40.817 | -2.817 | 0.405 |  |
| 149 | 1.401 | -3.537 | 0.405 |  | 150 | 40.817 | -3.537 | 0.405 |  |
| 151 | 1.401 | -5.111 | 0.405 |  | 152 | 40.817 | -5.111 | 0.405 |  |
| 153 | 1.609 | -5.111 | 0.405 |  | 154 | 4.609 | -5.111 | 0.405 |  |
| 155 | 1.609 | 1.051 | 0.405 |  | 156 | 4.609 | 1.051 | 0.405 |  |
| 157 | 7.609 | -5.111 | 0.405 |  | 158 | 7.609 | 1.051 | 0.405 |  |
| 159 | 10.609 | -5.111 | 0.405 |  | 160 | 10.609 | 1.051 | 0.405 |  |
| 161 | 13.609 | -5.111 | 0.405 |  | 162 | 13.609 | 1.051 | 0.405 |  |
| 163 | 16.609 | -5.111 | 0.405 |  | 164 | 16.609 | 1.051 | 0.405 |  |
| 165 | 19.609 | -5.111 | 0.405 |  | 166 | 19.609 | 1.051 | 0.405 |  |
| 167 | 22.609 | -5.111 | 0.405 |  | 168 | 22.609 | 1.051 | 0.405 |  |
| 169 | 25.609 | -5.111 | 0.405 |  | 170 | 25.609 | 1.051 | 0.405 |  |
| 171 | 28.609 | -5.111 | 0.405 |  | 172 | 28.609 | 1.051 | 0.405 |  |
| 173 | 31.609 | -5.111 | 0.405 |  | 174 | 31.609 | 1.051 | 0.405 |  |
| 175 | 34.609 | -5.111 | 0.405 |  | 176 | 34.609 | 1.051 | 0.405 |  |
| 177 | 37.609 | -5.111 | 0.405 |  | 178 | 37.609 | 1.051 | 0.405 |  |
| 179 | 40.609 | -5.111 | 0.405 |  | 180 | 40.609 | 1.051 | 0.405 |  |
| 181 | 1.609 | -0.523 | 0.405 |  | 182 | 1.609 | -1.243 | 0.405 |  |
| 183 | 1.609 | -2.817 | 0.405 |  | 184 | 1.609 | -3.537 | 0.405 |  |
| 185 | 40.609 | -0.523 | 0.405 |  | 186 | 40.609 | -1.243 | 0.405 |  |
| 187 | 40.609 | -2.817 | 0.405 |  | 188 | 40.609 | -3.537 | 0.405 |  |
| 189 | 4.609 | -0.523 | 0.405 |  | 190 | 4.609 | -1.243 | 0.405 |  |
| 191 | 4.609 | -2.817 | 0.405 |  | 192 | 4.609 | -3.537 | 0.405 |  |
| 193 | 7.609 | -0.523 | 0.405 |  | 194 | 7.609 | -1.243 | 0.405 |  |
| 195 | 7.609 | -2.817 | 0.405 |  | 196 | 7.609 | -3.537 | 0.405 |  |
| 197 | 10.609 | -0.523 | 0.405 |  | 198 | 10.609 | -1.243 | 0.405 |  |
| 199 | 10.609 | -2.817 | 0.405 |  | 200 | 10.609 | -3.537 | 0.405 |  |
| 201 | 13.609 | -0.523 | 0.405 |  | 202 | 13.609 | -1.243 | 0.405 |  |
| 203 | 13.609 | -2.817 | 0.405 |  | 204 | 13.609 | -3.537 | 0.405 |  |
| 205 | 16.609 | -0.523 | 0.405 |  | 206 | 16.609 | -1.243 | 0.405 |  |
| 207 | 16.609 | -2.817 | 0.405 |  | 208 | 16.609 | -3.537 | 0.405 |  |
| 209 | 19.609 | -0.523 | 0.405 |  | 210 | 19.609 | -1.243 | 0.405 |  |
| 211 | 19.609 | -2.817 | 0.405 |  | 212 | 19.609 | -3.537 | 0.405 |  |
| 213 | 22.609 | -0.523 | 0.405 |  | 214 | 22.609 | -1.243 | 0.405 |  |
| 215 | 22.609 | -2.817 | 0.405 |  | 216 | 22.609 | -3.537 | 0.405 |  |
| 217 | 25.609 | -0.523 | 0.405 |  | 218 | 25.609 | -1.243 | 0.405 |  |
| 219 | 25.609 | -2.817 | 0.405 |  | 220 | 25.609 | -3.537 | 0.405 |  |
| 221 | 28.609 | -0.523 | 0.405 |  | 222 | 28.609 | -1.243 | 0.405 |  |
| 223 | 28.609 | -2.817 | 0.405 |  | 224 | 28.609 | -3.537 | 0.405 |  |
| 225 | 31.609 | -0.523 | 0.405 |  | 226 | 31.609 | -1.243 | 0.405 |  |
| 227 | 31.609 | -2.817 | 0.405 |  | 228 | 31.609 | -3.537 | 0.405 |  |
| 229 | 34.609 | -0.523 | 0.405 |  | 230 | 34.609 | -1.243 | 0.405 |  |
| 231 | 34.609 | -2.817 | 0.405 |  | 232 | 34.609 | -3.537 | 0.405 |  |
| 233 | 37.609 | -0.523 | 0.405 |  | 234 | 37.609 | -1.243 | 0.405 |  |
| 235 | 37.609 | -2.817 | 0.405 |  | 236 | 37.609 | -3.537 | 0.405 |  |



单元编号图（整体）

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 单元信息表（注：等肢角钢的2、3轴分别对应u、v轴） | | | | | | | | | | |
| 单元号 | 截面名称 | 材料名称 | 长度(m) | 面积(mm2) | 绕2轴惯性矩(×104mm4) | 绕3轴惯性矩(×104mm4) | 绕2轴计算长度系数 | 绕3轴计算长度系数 | i节点释放 | j节点释放 |
| 1 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.000 | 1.000 | --- | R2R3 |
| 2 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.033 | 2.033 | --- | R2R3 |
| 3 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.033 | 2.033 | --- | R2R3 |
| 4 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.000 | 1.000 | --- | R2R3 |
| 5 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.000 | 1.000 | --- | R2R3 |
| 6 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.033 | 2.033 | --- | R2R3 |
| 7 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.033 | 2.033 | --- | R2R3 |
| 8 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.000 | 1.000 | --- | R2R3 |
| 9 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.000 | 1.000 | --- | R2R3 |
| 10 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.033 | 2.033 | --- | R2R3 |
| 11 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.033 | 2.033 | --- | R2R3 |
| 12 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.000 | 1.000 | --- | R2R3 |
| 13 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.000 | 1.000 | --- | R2R3 |
| 14 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.033 | 2.033 | --- | R2R3 |
| 15 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.033 | 2.033 | --- | R2R3 |
| 16 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.000 | 1.000 | --- | R2R3 |
| 17 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.000 | 1.000 | --- | R2R3 |
| 18 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.033 | 2.033 | --- | R2R3 |
| 19 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.033 | 2.033 | --- | R2R3 |
| 20 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.000 | 1.000 | --- | R2R3 |
| 21 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.000 | 1.000 | --- | R2R3 |
| 22 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.033 | 2.033 | --- | R2R3 |
| 23 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.033 | 2.033 | --- | R2R3 |
| 24 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.000 | 1.000 | --- | R2R3 |
| 25 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.000 | 1.000 | --- | R2R3 |
| 26 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.033 | 2.033 | --- | R2R3 |
| 27 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.033 | 2.033 | --- | R2R3 |
| 28 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.000 | 1.000 | --- | R2R3 |
| 29 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.000 | 1.000 | --- | R2R3 |
| 30 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.033 | 2.033 | --- | R2R3 |
| 31 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.033 | 2.033 | --- | R2R3 |
| 32 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.000 | 1.000 | --- | R2R3 |
| 33 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.000 | 1.000 | --- | R2R3 |
| 34 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.033 | 2.033 | --- | R2R3 |
| 35 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.033 | 2.033 | --- | R2R3 |
| 36 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.000 | 1.000 | --- | R2R3 |
| 37 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.000 | 1.000 | --- | R2R3 |
| 38 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.033 | 2.033 | --- | R2R3 |
| 39 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.033 | 2.033 | --- | R2R3 |
| 40 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.000 | 1.000 | --- | R2R3 |
| 41 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.000 | 1.000 | --- | R2R3 |
| 42 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.033 | 2.033 | --- | R2R3 |
| 43 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.033 | 2.033 | --- | R2R3 |
| 44 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.000 | 1.000 | --- | R2R3 |
| 45 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.000 | 1.000 | --- | R2R3 |
| 46 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.033 | 2.033 | --- | R2R3 |
| 47 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.033 | 2.033 | --- | R2R3 |
| 48 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.000 | 1.000 | --- | R2R3 |
| 49 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.000 | 1.000 | --- | R2R3 |
| 50 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.033 | 2.033 | --- | R2R3 |
| 51 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.033 | 2.033 | --- | R2R3 |
| 52 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.000 | 1.000 | --- | R2R3 |
| 53 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.000 | 1.000 | --- | R2R3 |
| 54 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.033 | 2.033 | --- | R2R3 |
| 55 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.033 | 2.033 | --- | R2R3 |
| 56 | C80X40X15X2.0 | Q355B | 0.405 | 347.00 | 34.16 | 7.79 | 2.000 | 1.000 | --- | R2R3 |
| 57 | C100X50X15X2.5 | Q355B | 0.265 | 523.00 | 81.34 | 17.19 | 2.000 | 2.000 | --- | --- |
| 58 | C100X50X15X2.5 | Q355B | 0.130 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 59 | C100X50X15X2.5 | Q355B | 1.444 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 60 | C100X50X15X2.5 | Q355B | 0.358 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 61 | C100X50X15X2.5 | Q355B | 0.362 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 62 | C100X50X15X2.5 | Q355B | 1.574 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 63 | C100X50X15X2.5 | Q355B | 0.358 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 64 | C100X50X15X2.5 | Q355B | 0.362 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 65 | C100X50X15X2.5 | Q355B | 1.440 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 66 | C100X50X15X2.5 | Q355B | 0.134 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 67 | C100X50X15X2.5 | Q355B | 0.265 | 523.00 | 81.34 | 17.19 | 2.000 | 2.000 | --- | --- |
| 68 | C100X50X15X2.5 | Q355B | 0.265 | 523.00 | 81.34 | 17.19 | 2.000 | 2.000 | --- | --- |
| 69 | C100X50X15X2.5 | Q355B | 0.130 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 70 | C100X50X15X2.5 | Q355B | 1.444 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 71 | C100X50X15X2.5 | Q355B | 0.358 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 72 | C100X50X15X2.5 | Q355B | 0.362 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 73 | C100X50X15X2.5 | Q355B | 1.574 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 74 | C100X50X15X2.5 | Q355B | 0.358 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 75 | C100X50X15X2.5 | Q355B | 0.362 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 76 | C100X50X15X2.5 | Q355B | 1.440 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 77 | C100X50X15X2.5 | Q355B | 0.134 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 78 | C100X50X15X2.5 | Q355B | 0.265 | 523.00 | 81.34 | 17.19 | 2.000 | 2.000 | --- | --- |
| 79 | C100X50X15X2.5 | Q355B | 0.265 | 523.00 | 81.34 | 17.19 | 2.000 | 2.000 | --- | --- |
| 80 | C100X50X15X2.5 | Q355B | 0.130 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 81 | C100X50X15X2.5 | Q355B | 1.444 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 82 | C100X50X15X2.5 | Q355B | 0.358 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 83 | C100X50X15X2.5 | Q355B | 0.362 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 84 | C100X50X15X2.5 | Q355B | 1.574 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 85 | C100X50X15X2.5 | Q355B | 0.358 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 86 | C100X50X15X2.5 | Q355B | 0.362 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 87 | C100X50X15X2.5 | Q355B | 1.440 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 88 | C100X50X15X2.5 | Q355B | 0.134 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 89 | C100X50X15X2.5 | Q355B | 0.265 | 523.00 | 81.34 | 17.19 | 2.000 | 2.000 | --- | --- |
| 90 | C100X50X15X2.5 | Q355B | 0.265 | 523.00 | 81.34 | 17.19 | 2.000 | 2.000 | --- | --- |
| 91 | C100X50X15X2.5 | Q355B | 0.130 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 92 | C100X50X15X2.5 | Q355B | 1.444 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 93 | C100X50X15X2.5 | Q355B | 0.358 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 94 | C100X50X15X2.5 | Q355B | 0.362 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 95 | C100X50X15X2.5 | Q355B | 1.574 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 96 | C100X50X15X2.5 | Q355B | 0.358 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 97 | C100X50X15X2.5 | Q355B | 0.362 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 98 | C100X50X15X2.5 | Q355B | 1.440 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 99 | C100X50X15X2.5 | Q355B | 0.134 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 100 | C100X50X15X2.5 | Q355B | 0.265 | 523.00 | 81.34 | 17.19 | 2.000 | 2.000 | --- | --- |
| 101 | C100X50X15X2.5 | Q355B | 0.265 | 523.00 | 81.34 | 17.19 | 2.000 | 2.000 | --- | --- |
| 102 | C100X50X15X2.5 | Q355B | 0.130 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 103 | C100X50X15X2.5 | Q355B | 1.444 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 104 | C100X50X15X2.5 | Q355B | 0.358 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 105 | C100X50X15X2.5 | Q355B | 0.362 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 106 | C100X50X15X2.5 | Q355B | 1.574 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 107 | C100X50X15X2.5 | Q355B | 0.358 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 108 | C100X50X15X2.5 | Q355B | 0.362 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 109 | C100X50X15X2.5 | Q355B | 1.440 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 110 | C100X50X15X2.5 | Q355B | 0.134 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 111 | C100X50X15X2.5 | Q355B | 0.265 | 523.00 | 81.34 | 17.19 | 2.000 | 2.000 | --- | --- |
| 112 | C100X50X15X2.5 | Q355B | 0.265 | 523.00 | 81.34 | 17.19 | 2.000 | 2.000 | --- | --- |
| 113 | C100X50X15X2.5 | Q355B | 0.130 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 114 | C100X50X15X2.5 | Q355B | 1.444 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 115 | C100X50X15X2.5 | Q355B | 0.358 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 116 | C100X50X15X2.5 | Q355B | 0.362 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 117 | C100X50X15X2.5 | Q355B | 1.574 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 118 | C100X50X15X2.5 | Q355B | 0.358 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 119 | C100X50X15X2.5 | Q355B | 0.362 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 120 | C100X50X15X2.5 | Q355B | 1.440 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 121 | C100X50X15X2.5 | Q355B | 0.134 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 122 | C100X50X15X2.5 | Q355B | 0.265 | 523.00 | 81.34 | 17.19 | 2.000 | 2.000 | --- | --- |
| 123 | C100X50X15X2.5 | Q355B | 0.265 | 523.00 | 81.34 | 17.19 | 2.000 | 2.000 | --- | --- |
| 124 | C100X50X15X2.5 | Q355B | 0.130 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 125 | C100X50X15X2.5 | Q355B | 1.444 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 126 | C100X50X15X2.5 | Q355B | 0.358 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 127 | C100X50X15X2.5 | Q355B | 0.362 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 128 | C100X50X15X2.5 | Q355B | 1.574 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 129 | C100X50X15X2.5 | Q355B | 0.358 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 130 | C100X50X15X2.5 | Q355B | 0.362 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 131 | C100X50X15X2.5 | Q355B | 1.440 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 132 | C100X50X15X2.5 | Q355B | 0.134 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 133 | C100X50X15X2.5 | Q355B | 0.265 | 523.00 | 81.34 | 17.19 | 2.000 | 2.000 | --- | --- |
| 134 | C100X50X15X2.5 | Q355B | 0.265 | 523.00 | 81.34 | 17.19 | 2.000 | 2.000 | --- | --- |
| 135 | C100X50X15X2.5 | Q355B | 0.130 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 136 | C100X50X15X2.5 | Q355B | 1.444 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 137 | C100X50X15X2.5 | Q355B | 0.358 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 138 | C100X50X15X2.5 | Q355B | 0.362 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 139 | C100X50X15X2.5 | Q355B | 1.574 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 140 | C100X50X15X2.5 | Q355B | 0.358 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 141 | C100X50X15X2.5 | Q355B | 0.362 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 142 | C100X50X15X2.5 | Q355B | 1.440 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 143 | C100X50X15X2.5 | Q355B | 0.134 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 144 | C100X50X15X2.5 | Q355B | 0.265 | 523.00 | 81.34 | 17.19 | 2.000 | 2.000 | --- | --- |
| 145 | C100X50X15X2.5 | Q355B | 0.265 | 523.00 | 81.34 | 17.19 | 2.000 | 2.000 | --- | --- |
| 146 | C100X50X15X2.5 | Q355B | 0.130 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 147 | C100X50X15X2.5 | Q355B | 1.444 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 148 | C100X50X15X2.5 | Q355B | 0.358 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 149 | C100X50X15X2.5 | Q355B | 0.362 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 150 | C100X50X15X2.5 | Q355B | 1.574 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 151 | C100X50X15X2.5 | Q355B | 0.358 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 152 | C100X50X15X2.5 | Q355B | 0.362 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 153 | C100X50X15X2.5 | Q355B | 1.440 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 154 | C100X50X15X2.5 | Q355B | 0.134 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 155 | C100X50X15X2.5 | Q355B | 0.265 | 523.00 | 81.34 | 17.19 | 2.000 | 2.000 | --- | --- |
| 156 | C100X50X15X2.5 | Q355B | 0.265 | 523.00 | 81.34 | 17.19 | 2.000 | 2.000 | --- | --- |
| 157 | C100X50X15X2.5 | Q355B | 0.130 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 158 | C100X50X15X2.5 | Q355B | 1.444 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 159 | C100X50X15X2.5 | Q355B | 0.358 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 160 | C100X50X15X2.5 | Q355B | 0.362 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 161 | C100X50X15X2.5 | Q355B | 1.574 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 162 | C100X50X15X2.5 | Q355B | 0.358 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 163 | C100X50X15X2.5 | Q355B | 0.362 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 164 | C100X50X15X2.5 | Q355B | 1.440 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 165 | C100X50X15X2.5 | Q355B | 0.134 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 166 | C100X50X15X2.5 | Q355B | 0.265 | 523.00 | 81.34 | 17.19 | 2.000 | 2.000 | --- | --- |
| 167 | C100X50X15X2.5 | Q355B | 0.265 | 523.00 | 81.34 | 17.19 | 2.000 | 2.000 | --- | --- |
| 168 | C100X50X15X2.5 | Q355B | 0.130 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 169 | C100X50X15X2.5 | Q355B | 1.444 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 170 | C100X50X15X2.5 | Q355B | 0.358 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 171 | C100X50X15X2.5 | Q355B | 0.362 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 172 | C100X50X15X2.5 | Q355B | 1.574 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 173 | C100X50X15X2.5 | Q355B | 0.358 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 174 | C100X50X15X2.5 | Q355B | 0.362 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 175 | C100X50X15X2.5 | Q355B | 1.440 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 176 | C100X50X15X2.5 | Q355B | 0.134 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 177 | C100X50X15X2.5 | Q355B | 0.265 | 523.00 | 81.34 | 17.19 | 2.000 | 2.000 | --- | --- |
| 178 | C100X50X15X2.5 | Q355B | 0.265 | 523.00 | 81.34 | 17.19 | 2.000 | 2.000 | --- | --- |
| 179 | C100X50X15X2.5 | Q355B | 0.130 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 180 | C100X50X15X2.5 | Q355B | 1.444 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 181 | C100X50X15X2.5 | Q355B | 0.358 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 182 | C100X50X15X2.5 | Q355B | 0.362 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 183 | C100X50X15X2.5 | Q355B | 1.574 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 184 | C100X50X15X2.5 | Q355B | 0.358 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 185 | C100X50X15X2.5 | Q355B | 0.362 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 186 | C100X50X15X2.5 | Q355B | 1.440 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 187 | C100X50X15X2.5 | Q355B | 0.134 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 188 | C100X50X15X2.5 | Q355B | 0.265 | 523.00 | 81.34 | 17.19 | 2.000 | 2.000 | --- | --- |
| 189 | C100X50X15X2.5 | Q355B | 0.265 | 523.00 | 81.34 | 17.19 | 2.000 | 2.000 | --- | --- |
| 190 | C100X50X15X2.5 | Q355B | 0.130 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 191 | C100X50X15X2.5 | Q355B | 1.444 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 192 | C100X50X15X2.5 | Q355B | 0.358 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 193 | C100X50X15X2.5 | Q355B | 0.362 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 194 | C100X50X15X2.5 | Q355B | 1.574 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 195 | C100X50X15X2.5 | Q355B | 0.358 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 196 | C100X50X15X2.5 | Q355B | 0.362 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 197 | C100X50X15X2.5 | Q355B | 1.440 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 198 | C100X50X15X2.5 | Q355B | 0.134 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 199 | C100X50X15X2.5 | Q355B | 0.265 | 523.00 | 81.34 | 17.19 | 2.000 | 2.000 | --- | --- |
| 200 | C100X50X15X2.5 | Q355B | 0.265 | 523.00 | 81.34 | 17.19 | 2.000 | 2.000 | --- | --- |
| 201 | C100X50X15X2.5 | Q355B | 0.130 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 202 | C100X50X15X2.5 | Q355B | 1.444 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 203 | C100X50X15X2.5 | Q355B | 0.358 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 204 | C100X50X15X2.5 | Q355B | 0.362 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 205 | C100X50X15X2.5 | Q355B | 1.574 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 206 | C100X50X15X2.5 | Q355B | 0.358 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 207 | C100X50X15X2.5 | Q355B | 0.362 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 208 | C100X50X15X2.5 | Q355B | 1.440 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 209 | C100X50X15X2.5 | Q355B | 0.134 | 523.00 | 81.34 | 17.19 | 1.000 | 1.000 | --- | --- |
| 210 | C100X50X15X2.5 | Q355B | 0.265 | 523.00 | 81.34 | 17.19 | 2.000 | 2.000 | --- | --- |
| 211 | C140X60X20X3.0 | Q355B | 0.208 | 825.00 | 245.42 | 39.49 | 2.000 | 2.000 | --- | --- |
| 212 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 213 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 214 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 215 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 216 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 217 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 218 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 219 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 220 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 221 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 222 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 223 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 224 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 225 | C140X60X20X3.0 | Q355B | 0.208 | 825.00 | 245.42 | 39.49 | 2.000 | 2.000 | --- | --- |
| 226 | C140X60X20X3.0 | Q355B | 0.208 | 825.00 | 245.42 | 39.49 | 2.000 | 2.000 | --- | --- |
| 227 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 228 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 229 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 230 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 231 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 232 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 233 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 234 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 235 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 236 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 237 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 238 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 239 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 240 | C140X60X20X3.0 | Q355B | 0.208 | 825.00 | 245.42 | 39.49 | 2.000 | 2.000 | --- | --- |
| 241 | C140X60X20X3.0 | Q355B | 0.208 | 825.00 | 245.42 | 39.49 | 2.000 | 2.000 | --- | --- |
| 242 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 243 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 244 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 245 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 246 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 247 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 248 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 249 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 250 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 251 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 252 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 253 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 254 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 255 | C140X60X20X3.0 | Q355B | 0.208 | 825.00 | 245.42 | 39.49 | 2.000 | 2.000 | --- | --- |
| 256 | C140X60X20X3.0 | Q355B | 0.208 | 825.00 | 245.42 | 39.49 | 2.000 | 2.000 | --- | --- |
| 257 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 258 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 259 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 260 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 261 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 262 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 263 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 264 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 265 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 266 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 267 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 268 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 269 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 270 | C140X60X20X3.0 | Q355B | 0.208 | 825.00 | 245.42 | 39.49 | 2.000 | 2.000 | --- | --- |
| 271 | C140X60X20X3.0 | Q355B | 0.208 | 825.00 | 245.42 | 39.49 | 2.000 | 2.000 | --- | --- |
| 272 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 273 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 274 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 275 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 276 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 277 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 278 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 279 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 280 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 281 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 282 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 283 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 284 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 285 | C140X60X20X3.0 | Q355B | 0.208 | 825.00 | 245.42 | 39.49 | 2.000 | 2.000 | --- | --- |
| 286 | C140X60X20X3.0 | Q355B | 0.208 | 825.00 | 245.42 | 39.49 | 2.000 | 2.000 | --- | --- |
| 287 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 288 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 289 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 290 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 291 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 292 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 293 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 294 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 295 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 296 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 297 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 298 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 299 | C140X60X20X3.0 | Q355B | 3.000 | 825.00 | 245.42 | 39.49 | 1.000 | 1.000 | --- | --- |
| 300 | C140X60X20X3.0 | Q355B | 0.208 | 825.00 | 245.42 | 39.49 | 2.000 | 2.000 | --- | --- |



截面编号图（整体）

|  |  |  |  |
| --- | --- | --- | --- |
| 截面信息表 | | | |
| 截面编号 | 截面类型 | 截面名称 | 构件总数 |
| 1 | 冷弯卷边槽钢 | C140X60X20X3.0 | 90 |
| 2 | 冷弯卷边槽钢 | C100X50X15X2.5 | 154 |
| 3 | 冷弯卷边槽钢 | C80X40X15X2.0 | 56 |

* 1. 计算参数

(1)动力特性计算

计算振型数: 9

振型类型: 特征向量

(2)线性计算

梁单元属性: 考虑剪切效应（铁木辛柯梁）

梁抗扭惯性矩: 自由扭转惯性矩

考虑P - Δ / 二阶效应：否

* 1. 设计参数

结构重要性系数：1.000

支撑临界角：15.000°

|  |  |  |
| --- | --- | --- |
| 抗震等级 | | |
| 结构类型 | 抗震等级 | 构造措施的抗震等级 |
| 钢框架 | 三级 | 三级 |

注：此处为整体抗震等级，若部分构件单独定义了抗震等级请注意检查。

1. 计算简图



计算简图（整体）

注：蓝色单元为普通单元，绿色单元为连接单元，绿色实心圆为支座，黄色实心圆为主从节点的主节点

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 支座信息表（单位: 刚度：kN/mm kN\*mm/rad 位移：mm rad） | | | | | | |
| 支座类型 | 平动1 | 平动2 | 平动3 | 转动R1 | 转动R2 | 转动R3 |
| 1 | 刚性 | 刚性 | 刚性 | 刚性 | 刚性 | 刚性 |

1. 材料信息
   1. 材料特性

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 名称 | 材料 | 弹性模量(kN/mm2) | 泊松比 | 线膨胀系数 | 设计强度(MPa) | 质量密度(kg/mm3) |
| Q355B-1 | Q355 | 206.000 | 0.300 | 1.20e-05 | 按规范 | 7.85e-06 |

* 1. 材料统计

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 钢汇总表 | | | | | |
| 序号 | 截面 | 材性 | 数量 | 长度(m) | 重量(kg) |
| 1 | C80X40X15X2.0 | Q355B-1 | 56 | 22.680 | 61.779 |
| 2 | C100X50X15X2.5 | Q355B-1 | 154 | 93.688 | 384.641 |
| 3 | C140X60X20X3.0 | Q355B-1 | 90 | 236.496 | 1531.607 |
|  |  |  | 300 根 | 352.864 m | 1978 kg |

1. 荷载与组合
   1. 工况信息

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 序号 | 工况号 | 荷载类型 | 自重系数 | 荷载说明 |
| 1 | 0 | 恒 | 1 |  |
| 2 | 1 | 风 | 0 | 光伏支架正风压 |
| 3 | 2 | 风 | 0 | 光伏支架负风压 |

* 1. 荷载信息

(1)单元荷载列表(力：kN；分布力：kN/m；弯矩：kN.m；分布弯矩：kN.m/m)

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 序号 | 荷载类型 | 工况 | 类型 | 方向 | 数值 | Q1 | Q2 | X1 | X2 |
| 1 | 恒 | 0 | 1 | Z | 绝对 | -0.121 | -0.121 | 0.000 | 0.000 |
| 2 | 风 | 1 | 1 | 3-3轴 | 绝对 | 2.538 | 2.538 | 0.000 | 0.000 |
| 3 | 风 | 2 | 1 | 3-3轴 | 绝对 | -3.014 | -3.014 | 0.000 | 0.000 |

* + 1. **恒荷载**
       1. 恒荷载0

(1)恒荷载0单元荷载

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 单元荷载表 | | | | | | |
| 序号 | 类型 | 方向 | Q1 | Q2 | X1(mm) | X2(mm) |
| 1 | 均布荷载 | Z | -0.121 | -0.121 | 0.000 | 0.000 |





恒荷载工况0单元荷载分布图（整体）

* + 1. **风荷载**
       1. 风荷载1

(1)风荷载1单元荷载

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 单元荷载表 | | | | | | |
| 序号 | 类型 | 方向 | Q1 | Q2 | X1(mm) | X2(mm) |
| 1 | 均布荷载 | 3-3轴 | 2.538 | 2.538 | 0.000 | 0.000 |





风荷载工况1单元荷载分布图（整体）

* + - 1. 风荷载2

(1)风荷载2单元荷载

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 单元荷载表 | | | | | | |
| 序号 | 类型 | 方向 | Q1 | Q2 | X1(mm) | X2(mm) |
| 1 | 均布荷载 | 3-3轴 | -3.014 | -3.014 | 0.000 | 0.000 |





风荷载工况2单元荷载分布图（整体）

* 1. 荷载组合

(1) 1.300 恒载 + 1.50风载1

(2) 1.300 恒载 + 1.50风载2

(3) 1.000 恒载 + 1.50风载1

(4) 1.000 恒载 + 1.50风载2

1. 周期与振型
   1. 周期与质量参与系数

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 振型 | 周期(s) | X向质量参与系数 | Y向质量参与系数 | Z向质量参与系数 |
| 1 | 0.079 | 75.440% | 0.000% | 0.000% |
| 2 | 0.070 | 0.000% | 0.000% | 0.000% |
| 3 | 0.057 | 24.074% | 0.000% | 0.000% |
| 4 | 0.057 | 0.474% | 0.000% | 0.000% |
| 5 | 0.041 | 0.001% | 0.000% | 0.000% |
| 6 | 0.036 | 0.000% | 0.000% | 0.000% |
| 7 | 0.035 | 0.000% | 78.314% | 0.000% |
| 8 | 0.035 | 0.000% | 0.000% | 0.000% |
| 9 | 0.035 | 0.000% | 8.455% | 0.000% |
| 合计 |  | 99.990% | 86.769% | 0.000% |

1. 线性计算结果
   1. 线性反力



支座节点编号图（整体）

* + 1. **最不利反力**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 线性组合最不利反力表(标准值)(单位：kN、kN.m) | | | | | | | | | |
| 节点号 | 控制 | 组合号 | 组合序号 | N1 | N2 | N3 | M1 | M2 | M3 |
| 139 | N1最大 | 2 | 1 | 0.000 | 0.000 | -4.427 | 0.000 | 0.000 | 0.000 |
| 139 | N2最大 | 2 | 1 | 0.000 | 0.000 | -4.427 | 0.000 | 0.000 | 0.000 |
| 139 | N3最大 | 1 | 1 | -0.000 | -0.000 | 4.369 | -0.000 | -0.000 | -0.000 |
| 139 | M1最大 | 2 | 1 | 0.000 | 0.000 | -4.427 | 0.000 | 0.000 | 0.000 |
| 139 | M2最大 | 2 | 1 | 0.000 | 0.000 | -4.427 | 0.000 | 0.000 | 0.000 |
| 139 | M3最大 | 2 | 1 | 0.000 | 0.000 | -4.427 | 0.000 | 0.000 | 0.000 |
| 139 | 合力最大 | 2 | 1 | 0.000 | 0.000 | -4.427 | 0.000 | 0.000 | 0.000 |
| 139 | N1最小 | 1 | 1 | -0.000 | -0.000 | 4.369 | -0.000 | -0.000 | -0.000 |
| 139 | N2最小 | 1 | 1 | -0.000 | -0.000 | 4.369 | -0.000 | -0.000 | -0.000 |
| 139 | N3最小 | 2 | 1 | 0.000 | 0.000 | -4.427 | 0.000 | 0.000 | 0.000 |
| 139 | M1最小 | 1 | 1 | -0.000 | -0.000 | 4.369 | -0.000 | -0.000 | -0.000 |
| 139 | M2最小 | 1 | 1 | -0.000 | -0.000 | 4.369 | -0.000 | -0.000 | -0.000 |
| 139 | M3最小 | 1 | 1 | -0.000 | -0.000 | 4.369 | -0.000 | -0.000 | -0.000 |
| 137 | N1最大 | 2 | 1 | 0.000 | 0.000 | -7.364 | 0.000 | 0.000 | 0.000 |
| 137 | N2最大 | 2 | 1 | 0.000 | 0.000 | -7.364 | 0.000 | 0.000 | 0.000 |
| 137 | N3最大 | 1 | 1 | -0.000 | -0.000 | 7.283 | -0.000 | -0.000 | -0.000 |
| 137 | M1最大 | 2 | 1 | 0.000 | 0.000 | -7.364 | 0.000 | 0.000 | 0.000 |
| 137 | M2最大 | 2 | 1 | 0.000 | 0.000 | -7.364 | 0.000 | 0.000 | 0.000 |
| 137 | M3最大 | 2 | 1 | 0.000 | 0.000 | -7.364 | 0.000 | 0.000 | 0.000 |
| 137 | 合力最大 | 2 | 1 | 0.000 | 0.000 | -7.364 | 0.000 | 0.000 | 0.000 |
| 137 | N1最小 | 1 | 1 | -0.000 | -0.000 | 7.283 | -0.000 | -0.000 | -0.000 |
| 137 | N2最小 | 1 | 1 | -0.000 | -0.000 | 7.283 | -0.000 | -0.000 | -0.000 |
| 137 | N3最小 | 2 | 1 | 0.000 | 0.000 | -7.364 | 0.000 | 0.000 | 0.000 |
| 137 | M1最小 | 1 | 1 | -0.000 | -0.000 | 7.283 | -0.000 | -0.000 | -0.000 |
| 137 | M2最小 | 1 | 1 | -0.000 | -0.000 | 7.283 | -0.000 | -0.000 | -0.000 |
| 137 | M3最小 | 1 | 1 | -0.000 | -0.000 | 7.283 | -0.000 | -0.000 | -0.000 |
| 135 | N1最大 | 2 | 1 | 0.000 | -0.000 | -7.370 | 0.000 | 0.000 | 0.000 |
| 135 | N2最大 | 1 | 1 | -0.000 | 0.000 | 7.289 | -0.000 | -0.000 | -0.000 |
| 135 | N3最大 | 1 | 1 | -0.000 | 0.000 | 7.289 | -0.000 | -0.000 | -0.000 |
| 135 | M1最大 | 2 | 1 | 0.000 | -0.000 | -7.370 | 0.000 | 0.000 | 0.000 |
| 135 | M2最大 | 2 | 1 | 0.000 | -0.000 | -7.370 | 0.000 | 0.000 | 0.000 |
| 135 | M3最大 | 2 | 1 | 0.000 | -0.000 | -7.370 | 0.000 | 0.000 | 0.000 |
| 135 | 合力最大 | 2 | 1 | 0.000 | -0.000 | -7.370 | 0.000 | 0.000 | 0.000 |
| 135 | N1最小 | 1 | 1 | -0.000 | 0.000 | 7.289 | -0.000 | -0.000 | -0.000 |
| 135 | N2最小 | 2 | 1 | 0.000 | -0.000 | -7.370 | 0.000 | 0.000 | 0.000 |
| 135 | N3最小 | 2 | 1 | 0.000 | -0.000 | -7.370 | 0.000 | 0.000 | 0.000 |
| 135 | M1最小 | 1 | 1 | -0.000 | 0.000 | 7.289 | -0.000 | -0.000 | -0.000 |
| 135 | M2最小 | 1 | 1 | -0.000 | 0.000 | 7.289 | -0.000 | -0.000 | -0.000 |
| 135 | M3最小 | 1 | 1 | -0.000 | 0.000 | 7.289 | -0.000 | -0.000 | -0.000 |
| 133 | N1最大 | 1 | 1 | 0.000 | 0.000 | 4.350 | -0.000 | 0.000 | 0.000 |
| 133 | N2最大 | 1 | 1 | 0.000 | 0.000 | 4.350 | -0.000 | 0.000 | 0.000 |
| 133 | N3最大 | 1 | 1 | 0.000 | 0.000 | 4.350 | -0.000 | 0.000 | 0.000 |
| 133 | M1最大 | 2 | 1 | -0.000 | -0.000 | -4.408 | 0.000 | -0.000 | -0.000 |
| 133 | M2最大 | 1 | 1 | 0.000 | 0.000 | 4.350 | -0.000 | 0.000 | 0.000 |
| 133 | M3最大 | 1 | 1 | 0.000 | 0.000 | 4.350 | -0.000 | 0.000 | 0.000 |
| 133 | 合力最大 | 2 | 1 | -0.000 | -0.000 | -4.408 | 0.000 | -0.000 | -0.000 |
| 133 | N1最小 | 2 | 1 | -0.000 | -0.000 | -4.408 | 0.000 | -0.000 | -0.000 |
| 133 | N2最小 | 2 | 1 | -0.000 | -0.000 | -4.408 | 0.000 | -0.000 | -0.000 |
| 133 | N3最小 | 2 | 1 | -0.000 | -0.000 | -4.408 | 0.000 | -0.000 | -0.000 |
| 133 | M1最小 | 1 | 1 | 0.000 | 0.000 | 4.350 | -0.000 | 0.000 | 0.000 |
| 133 | M2最小 | 2 | 1 | -0.000 | -0.000 | -4.408 | 0.000 | -0.000 | -0.000 |
| 133 | M3最小 | 2 | 1 | -0.000 | -0.000 | -4.408 | 0.000 | -0.000 | -0.000 |
| 129 | N1最大 | 1 | 1 | 0.000 | -0.000 | 10.439 | -0.000 | 0.000 | 0.000 |
| 129 | N2最大 | 2 | 1 | -0.000 | 0.000 | -10.735 | 0.000 | -0.000 | -0.000 |
| 129 | N3最大 | 1 | 1 | 0.000 | -0.000 | 10.439 | -0.000 | 0.000 | 0.000 |
| 129 | M1最大 | 2 | 1 | -0.000 | 0.000 | -10.735 | 0.000 | -0.000 | -0.000 |
| 129 | M2最大 | 1 | 1 | 0.000 | -0.000 | 10.439 | -0.000 | 0.000 | 0.000 |
| 129 | M3最大 | 1 | 1 | 0.000 | -0.000 | 10.439 | -0.000 | 0.000 | 0.000 |
| 129 | 合力最大 | 2 | 1 | -0.000 | 0.000 | -10.735 | 0.000 | -0.000 | -0.000 |
| 129 | N1最小 | 2 | 1 | -0.000 | 0.000 | -10.735 | 0.000 | -0.000 | -0.000 |
| 129 | N2最小 | 1 | 1 | 0.000 | -0.000 | 10.439 | -0.000 | 0.000 | 0.000 |
| 129 | N3最小 | 2 | 1 | -0.000 | 0.000 | -10.735 | 0.000 | -0.000 | -0.000 |
| 129 | M1最小 | 1 | 1 | 0.000 | -0.000 | 10.439 | -0.000 | 0.000 | 0.000 |
| 129 | M2最小 | 2 | 1 | -0.000 | 0.000 | -10.735 | 0.000 | -0.000 | -0.000 |
| 129 | M3最小 | 2 | 1 | -0.000 | 0.000 | -10.735 | 0.000 | -0.000 | -0.000 |
| 127 | N1最大 | 2 | 1 | 0.000 | 0.000 | -17.763 | 0.000 | 0.000 | -0.000 |
| 127 | N2最大 | 2 | 1 | 0.000 | 0.000 | -17.763 | 0.000 | 0.000 | -0.000 |
| 127 | N3最大 | 1 | 1 | -0.000 | -0.000 | 17.289 | -0.000 | -0.000 | 0.000 |
| 127 | M1最大 | 2 | 1 | 0.000 | 0.000 | -17.763 | 0.000 | 0.000 | -0.000 |
| 127 | M2最大 | 2 | 1 | 0.000 | 0.000 | -17.763 | 0.000 | 0.000 | -0.000 |
| 127 | M3最大 | 1 | 1 | -0.000 | -0.000 | 17.289 | -0.000 | -0.000 | 0.000 |
| 127 | 合力最大 | 2 | 1 | 0.000 | 0.000 | -17.763 | 0.000 | 0.000 | -0.000 |
| 127 | N1最小 | 1 | 1 | -0.000 | -0.000 | 17.289 | -0.000 | -0.000 | 0.000 |
| 127 | N2最小 | 1 | 1 | -0.000 | -0.000 | 17.289 | -0.000 | -0.000 | 0.000 |
| 127 | N3最小 | 2 | 1 | 0.000 | 0.000 | -17.763 | 0.000 | 0.000 | -0.000 |
| 127 | M1最小 | 1 | 1 | -0.000 | -0.000 | 17.289 | -0.000 | -0.000 | 0.000 |
| 127 | M2最小 | 1 | 1 | -0.000 | -0.000 | 17.289 | -0.000 | -0.000 | 0.000 |
| 127 | M3最小 | 2 | 1 | 0.000 | 0.000 | -17.763 | 0.000 | 0.000 | -0.000 |
| 125 | N1最大 | 2 | 1 | 0.000 | -0.000 | -17.776 | 0.000 | 0.000 | -0.000 |
| 125 | N2最大 | 1 | 1 | -0.000 | 0.000 | 17.302 | -0.000 | -0.000 | 0.000 |
| 125 | N3最大 | 1 | 1 | -0.000 | 0.000 | 17.302 | -0.000 | -0.000 | 0.000 |
| 125 | M1最大 | 2 | 1 | 0.000 | -0.000 | -17.776 | 0.000 | 0.000 | -0.000 |
| 125 | M2最大 | 2 | 1 | 0.000 | -0.000 | -17.776 | 0.000 | 0.000 | -0.000 |
| 125 | M3最大 | 1 | 1 | -0.000 | 0.000 | 17.302 | -0.000 | -0.000 | 0.000 |
| 125 | 合力最大 | 2 | 1 | 0.000 | -0.000 | -17.776 | 0.000 | 0.000 | -0.000 |
| 125 | N1最小 | 1 | 1 | -0.000 | 0.000 | 17.302 | -0.000 | -0.000 | 0.000 |
| 125 | N2最小 | 2 | 1 | 0.000 | -0.000 | -17.776 | 0.000 | 0.000 | -0.000 |
| 125 | N3最小 | 2 | 1 | 0.000 | -0.000 | -17.776 | 0.000 | 0.000 | -0.000 |
| 125 | M1最小 | 1 | 1 | -0.000 | 0.000 | 17.302 | -0.000 | -0.000 | 0.000 |
| 125 | M2最小 | 1 | 1 | -0.000 | 0.000 | 17.302 | -0.000 | -0.000 | 0.000 |
| 125 | M3最小 | 2 | 1 | 0.000 | -0.000 | -17.776 | 0.000 | 0.000 | -0.000 |
| 123 | N1最大 | 2 | 1 | 0.000 | -0.000 | -10.693 | 0.000 | 0.000 | 0.000 |
| 123 | N2最大 | 1 | 1 | -0.000 | 0.000 | 10.397 | -0.000 | -0.000 | -0.000 |
| 123 | N3最大 | 1 | 1 | -0.000 | 0.000 | 10.397 | -0.000 | -0.000 | -0.000 |
| 123 | M1最大 | 2 | 1 | 0.000 | -0.000 | -10.693 | 0.000 | 0.000 | 0.000 |
| 123 | M2最大 | 2 | 1 | 0.000 | -0.000 | -10.693 | 0.000 | 0.000 | 0.000 |
| 123 | M3最大 | 2 | 1 | 0.000 | -0.000 | -10.693 | 0.000 | 0.000 | 0.000 |
| 123 | 合力最大 | 2 | 1 | 0.000 | -0.000 | -10.693 | 0.000 | 0.000 | 0.000 |
| 123 | N1最小 | 1 | 1 | -0.000 | 0.000 | 10.397 | -0.000 | -0.000 | -0.000 |
| 123 | N2最小 | 2 | 1 | 0.000 | -0.000 | -10.693 | 0.000 | 0.000 | 0.000 |
| 123 | N3最小 | 2 | 1 | 0.000 | -0.000 | -10.693 | 0.000 | 0.000 | 0.000 |
| 123 | M1最小 | 1 | 1 | -0.000 | 0.000 | 10.397 | -0.000 | -0.000 | -0.000 |
| 123 | M2最小 | 1 | 1 | -0.000 | 0.000 | 10.397 | -0.000 | -0.000 | -0.000 |
| 123 | M3最小 | 1 | 1 | -0.000 | 0.000 | 10.397 | -0.000 | -0.000 | -0.000 |
| 119 | N1最大 | 1 | 1 | 0.000 | -0.000 | 8.977 | -0.000 | 0.000 | -0.000 |
| 119 | N2最大 | 2 | 1 | -0.000 | 0.000 | -9.216 | 0.000 | -0.000 | 0.000 |
| 119 | N3最大 | 1 | 1 | 0.000 | -0.000 | 8.977 | -0.000 | 0.000 | -0.000 |
| 119 | M1最大 | 2 | 1 | -0.000 | 0.000 | -9.216 | 0.000 | -0.000 | 0.000 |
| 119 | M2最大 | 1 | 1 | 0.000 | -0.000 | 8.977 | -0.000 | 0.000 | -0.000 |
| 119 | M3最大 | 2 | 1 | -0.000 | 0.000 | -9.216 | 0.000 | -0.000 | 0.000 |
| 119 | 合力最大 | 2 | 1 | -0.000 | 0.000 | -9.216 | 0.000 | -0.000 | 0.000 |
| 119 | N1最小 | 2 | 1 | -0.000 | 0.000 | -9.216 | 0.000 | -0.000 | 0.000 |
| 119 | N2最小 | 1 | 1 | 0.000 | -0.000 | 8.977 | -0.000 | 0.000 | -0.000 |
| 119 | N3最小 | 2 | 1 | -0.000 | 0.000 | -9.216 | 0.000 | -0.000 | 0.000 |
| 119 | M1最小 | 1 | 1 | 0.000 | -0.000 | 8.977 | -0.000 | 0.000 | -0.000 |
| 119 | M2最小 | 2 | 1 | -0.000 | 0.000 | -9.216 | 0.000 | -0.000 | 0.000 |
| 119 | M3最小 | 1 | 1 | 0.000 | -0.000 | 8.977 | -0.000 | 0.000 | -0.000 |
| 117 | N1最大 | 2 | 1 | 0.000 | 0.000 | -15.340 | 0.000 | 0.000 | 0.000 |
| 117 | N2最大 | 2 | 1 | 0.000 | 0.000 | -15.340 | 0.000 | 0.000 | 0.000 |
| 117 | N3最大 | 1 | 1 | -0.000 | -0.000 | 14.958 | -0.000 | -0.000 | -0.000 |
| 117 | M1最大 | 2 | 1 | 0.000 | 0.000 | -15.340 | 0.000 | 0.000 | 0.000 |
| 117 | M2最大 | 2 | 1 | 0.000 | 0.000 | -15.340 | 0.000 | 0.000 | 0.000 |
| 117 | M3最大 | 2 | 1 | 0.000 | 0.000 | -15.340 | 0.000 | 0.000 | 0.000 |
| 117 | 合力最大 | 2 | 1 | 0.000 | 0.000 | -15.340 | 0.000 | 0.000 | 0.000 |
| 117 | N1最小 | 1 | 1 | -0.000 | -0.000 | 14.958 | -0.000 | -0.000 | -0.000 |
| 117 | N2最小 | 1 | 1 | -0.000 | -0.000 | 14.958 | -0.000 | -0.000 | -0.000 |
| 117 | N3最小 | 2 | 1 | 0.000 | 0.000 | -15.340 | 0.000 | 0.000 | 0.000 |
| 117 | M1最小 | 1 | 1 | -0.000 | -0.000 | 14.958 | -0.000 | -0.000 | -0.000 |
| 117 | M2最小 | 1 | 1 | -0.000 | -0.000 | 14.958 | -0.000 | -0.000 | -0.000 |
| 117 | M3最小 | 1 | 1 | -0.000 | -0.000 | 14.958 | -0.000 | -0.000 | -0.000 |
| 115 | N1最大 | 2 | 1 | 0.000 | -0.000 | -15.353 | 0.000 | 0.000 | 0.000 |
| 115 | N2最大 | 1 | 1 | -0.000 | 0.000 | 14.970 | -0.000 | -0.000 | -0.000 |
| 115 | N3最大 | 1 | 1 | -0.000 | 0.000 | 14.970 | -0.000 | -0.000 | -0.000 |
| 115 | M1最大 | 2 | 1 | 0.000 | -0.000 | -15.353 | 0.000 | 0.000 | 0.000 |
| 115 | M2最大 | 2 | 1 | 0.000 | -0.000 | -15.353 | 0.000 | 0.000 | 0.000 |
| 115 | M3最大 | 2 | 1 | 0.000 | -0.000 | -15.353 | 0.000 | 0.000 | 0.000 |
| 115 | 合力最大 | 2 | 1 | 0.000 | -0.000 | -15.353 | 0.000 | 0.000 | 0.000 |
| 115 | N1最小 | 1 | 1 | -0.000 | 0.000 | 14.970 | -0.000 | -0.000 | -0.000 |
| 115 | N2最小 | 2 | 1 | 0.000 | -0.000 | -15.353 | 0.000 | 0.000 | 0.000 |
| 115 | N3最小 | 2 | 1 | 0.000 | -0.000 | -15.353 | 0.000 | 0.000 | 0.000 |
| 115 | M1最小 | 1 | 1 | -0.000 | 0.000 | 14.970 | -0.000 | -0.000 | -0.000 |
| 115 | M2最小 | 1 | 1 | -0.000 | 0.000 | 14.970 | -0.000 | -0.000 | -0.000 |
| 115 | M3最小 | 1 | 1 | -0.000 | 0.000 | 14.970 | -0.000 | -0.000 | -0.000 |
| 113 | N1最大 | 1 | 1 | 0.000 | 0.000 | 8.938 | -0.000 | 0.000 | 0.000 |
| 113 | N2最大 | 1 | 1 | 0.000 | 0.000 | 8.938 | -0.000 | 0.000 | 0.000 |
| 113 | N3最大 | 1 | 1 | 0.000 | 0.000 | 8.938 | -0.000 | 0.000 | 0.000 |
| 113 | M1最大 | 2 | 1 | -0.000 | -0.000 | -9.176 | 0.000 | -0.000 | -0.000 |
| 113 | M2最大 | 1 | 1 | 0.000 | 0.000 | 8.938 | -0.000 | 0.000 | 0.000 |
| 113 | M3最大 | 1 | 1 | 0.000 | 0.000 | 8.938 | -0.000 | 0.000 | 0.000 |
| 113 | 合力最大 | 2 | 1 | -0.000 | -0.000 | -9.176 | 0.000 | -0.000 | -0.000 |
| 113 | N1最小 | 2 | 1 | -0.000 | -0.000 | -9.176 | 0.000 | -0.000 | -0.000 |
| 113 | N2最小 | 2 | 1 | -0.000 | -0.000 | -9.176 | 0.000 | -0.000 | -0.000 |
| 113 | N3最小 | 2 | 1 | -0.000 | -0.000 | -9.176 | 0.000 | -0.000 | -0.000 |
| 113 | M1最小 | 1 | 1 | 0.000 | 0.000 | 8.938 | -0.000 | 0.000 | 0.000 |
| 113 | M2最小 | 2 | 1 | -0.000 | -0.000 | -9.176 | 0.000 | -0.000 | -0.000 |
| 113 | M3最小 | 2 | 1 | -0.000 | -0.000 | -9.176 | 0.000 | -0.000 | -0.000 |
| 109 | N1最大 | 1 | 1 | 0.000 | -0.000 | 9.345 | -0.000 | 0.000 | -0.000 |
| 109 | N2最大 | 2 | 1 | -0.000 | 0.000 | -9.598 | 0.000 | -0.000 | 0.000 |
| 109 | N3最大 | 1 | 1 | 0.000 | -0.000 | 9.345 | -0.000 | 0.000 | -0.000 |
| 109 | M1最大 | 2 | 1 | -0.000 | 0.000 | -9.598 | 0.000 | -0.000 | 0.000 |
| 109 | M2最大 | 1 | 1 | 0.000 | -0.000 | 9.345 | -0.000 | 0.000 | -0.000 |
| 109 | M3最大 | 2 | 1 | -0.000 | 0.000 | -9.598 | 0.000 | -0.000 | 0.000 |
| 109 | 合力最大 | 2 | 1 | -0.000 | 0.000 | -9.598 | 0.000 | -0.000 | 0.000 |
| 109 | N1最小 | 2 | 1 | -0.000 | 0.000 | -9.598 | 0.000 | -0.000 | 0.000 |
| 109 | N2最小 | 1 | 1 | 0.000 | -0.000 | 9.345 | -0.000 | 0.000 | -0.000 |
| 109 | N3最小 | 2 | 1 | -0.000 | 0.000 | -9.598 | 0.000 | -0.000 | 0.000 |
| 109 | M1最小 | 1 | 1 | 0.000 | -0.000 | 9.345 | -0.000 | 0.000 | -0.000 |
| 109 | M2最小 | 2 | 1 | -0.000 | 0.000 | -9.598 | 0.000 | -0.000 | 0.000 |
| 109 | M3最小 | 1 | 1 | 0.000 | -0.000 | 9.345 | -0.000 | 0.000 | -0.000 |
| 107 | N1最大 | 2 | 1 | 0.000 | 0.000 | -15.910 | 0.000 | 0.000 | -0.000 |
| 107 | N2最大 | 2 | 1 | 0.000 | 0.000 | -15.910 | 0.000 | 0.000 | -0.000 |
| 107 | N3最大 | 1 | 1 | -0.000 | -0.000 | 15.506 | -0.000 | -0.000 | 0.000 |
| 107 | M1最大 | 2 | 1 | 0.000 | 0.000 | -15.910 | 0.000 | 0.000 | -0.000 |
| 107 | M2最大 | 2 | 1 | 0.000 | 0.000 | -15.910 | 0.000 | 0.000 | -0.000 |
| 107 | M3最大 | 1 | 1 | -0.000 | -0.000 | 15.506 | -0.000 | -0.000 | 0.000 |
| 107 | 合力最大 | 2 | 1 | 0.000 | 0.000 | -15.910 | 0.000 | 0.000 | -0.000 |
| 107 | N1最小 | 1 | 1 | -0.000 | -0.000 | 15.506 | -0.000 | -0.000 | 0.000 |
| 107 | N2最小 | 1 | 1 | -0.000 | -0.000 | 15.506 | -0.000 | -0.000 | 0.000 |
| 107 | N3最小 | 2 | 1 | 0.000 | 0.000 | -15.910 | 0.000 | 0.000 | -0.000 |
| 107 | M1最小 | 1 | 1 | -0.000 | -0.000 | 15.506 | -0.000 | -0.000 | 0.000 |
| 107 | M2最小 | 1 | 1 | -0.000 | -0.000 | 15.506 | -0.000 | -0.000 | 0.000 |
| 107 | M3最小 | 2 | 1 | 0.000 | 0.000 | -15.910 | 0.000 | 0.000 | -0.000 |
| 105 | N1最大 | 2 | 1 | 0.000 | -0.000 | -15.923 | 0.000 | 0.000 | 0.000 |
| 105 | N2最大 | 1 | 1 | -0.000 | 0.000 | 15.519 | -0.000 | -0.000 | -0.000 |
| 105 | N3最大 | 1 | 1 | -0.000 | 0.000 | 15.519 | -0.000 | -0.000 | -0.000 |
| 105 | M1最大 | 2 | 1 | 0.000 | -0.000 | -15.923 | 0.000 | 0.000 | 0.000 |
| 105 | M2最大 | 2 | 1 | 0.000 | -0.000 | -15.923 | 0.000 | 0.000 | 0.000 |
| 105 | M3最大 | 2 | 1 | 0.000 | -0.000 | -15.923 | 0.000 | 0.000 | 0.000 |
| 105 | 合力最大 | 2 | 1 | 0.000 | -0.000 | -15.923 | 0.000 | 0.000 | 0.000 |
| 105 | N1最小 | 1 | 1 | -0.000 | 0.000 | 15.519 | -0.000 | -0.000 | -0.000 |
| 105 | N2最小 | 2 | 1 | 0.000 | -0.000 | -15.923 | 0.000 | 0.000 | 0.000 |
| 105 | N3最小 | 2 | 1 | 0.000 | -0.000 | -15.923 | 0.000 | 0.000 | 0.000 |
| 105 | M1最小 | 1 | 1 | -0.000 | 0.000 | 15.519 | -0.000 | -0.000 | -0.000 |
| 105 | M2最小 | 1 | 1 | -0.000 | 0.000 | 15.519 | -0.000 | -0.000 | -0.000 |
| 105 | M3最小 | 1 | 1 | -0.000 | 0.000 | 15.519 | -0.000 | -0.000 | -0.000 |
| 103 | N1最大 | 1 | 1 | 0.000 | 0.000 | 9.307 | -0.000 | 0.000 | 0.000 |
| 103 | N2最大 | 1 | 1 | 0.000 | 0.000 | 9.307 | -0.000 | 0.000 | 0.000 |
| 103 | N3最大 | 1 | 1 | 0.000 | 0.000 | 9.307 | -0.000 | 0.000 | 0.000 |
| 103 | M1最大 | 2 | 1 | -0.000 | -0.000 | -9.559 | 0.000 | -0.000 | -0.000 |
| 103 | M2最大 | 1 | 1 | 0.000 | 0.000 | 9.307 | -0.000 | 0.000 | 0.000 |
| 103 | M3最大 | 1 | 1 | 0.000 | 0.000 | 9.307 | -0.000 | 0.000 | 0.000 |
| 103 | 合力最大 | 2 | 1 | -0.000 | -0.000 | -9.559 | 0.000 | -0.000 | -0.000 |
| 103 | N1最小 | 2 | 1 | -0.000 | -0.000 | -9.559 | 0.000 | -0.000 | -0.000 |
| 103 | N2最小 | 2 | 1 | -0.000 | -0.000 | -9.559 | 0.000 | -0.000 | -0.000 |
| 103 | N3最小 | 2 | 1 | -0.000 | -0.000 | -9.559 | 0.000 | -0.000 | -0.000 |
| 103 | M1最小 | 1 | 1 | 0.000 | 0.000 | 9.307 | -0.000 | 0.000 | 0.000 |
| 103 | M2最小 | 2 | 1 | -0.000 | -0.000 | -9.559 | 0.000 | -0.000 | -0.000 |
| 103 | M3最小 | 2 | 1 | -0.000 | -0.000 | -9.559 | 0.000 | -0.000 | -0.000 |
| 99 | N1最大 | 1 | 1 | 0.000 | -0.000 | 9.252 | -0.000 | 0.000 | -0.000 |
| 99 | N2最大 | 2 | 1 | -0.000 | 0.000 | -9.502 | 0.000 | -0.000 | 0.000 |
| 99 | N3最大 | 1 | 1 | 0.000 | -0.000 | 9.252 | -0.000 | 0.000 | -0.000 |
| 99 | M1最大 | 2 | 1 | -0.000 | 0.000 | -9.502 | 0.000 | -0.000 | 0.000 |
| 99 | M2最大 | 1 | 1 | 0.000 | -0.000 | 9.252 | -0.000 | 0.000 | -0.000 |
| 99 | M3最大 | 2 | 1 | -0.000 | 0.000 | -9.502 | 0.000 | -0.000 | 0.000 |
| 99 | 合力最大 | 2 | 1 | -0.000 | 0.000 | -9.502 | 0.000 | -0.000 | 0.000 |
| 99 | N1最小 | 2 | 1 | -0.000 | 0.000 | -9.502 | 0.000 | -0.000 | 0.000 |
| 99 | N2最小 | 1 | 1 | 0.000 | -0.000 | 9.252 | -0.000 | 0.000 | -0.000 |
| 99 | N3最小 | 2 | 1 | -0.000 | 0.000 | -9.502 | 0.000 | -0.000 | 0.000 |
| 99 | M1最小 | 1 | 1 | 0.000 | -0.000 | 9.252 | -0.000 | 0.000 | -0.000 |
| 99 | M2最小 | 2 | 1 | -0.000 | 0.000 | -9.502 | 0.000 | -0.000 | 0.000 |
| 99 | M3最小 | 1 | 1 | 0.000 | -0.000 | 9.252 | -0.000 | 0.000 | -0.000 |
| 97 | N1最大 | 2 | 1 | 0.000 | 0.000 | -15.775 | 0.000 | 0.000 | -0.000 |
| 97 | N2最大 | 2 | 1 | 0.000 | 0.000 | -15.775 | 0.000 | 0.000 | -0.000 |
| 97 | N3最大 | 1 | 1 | -0.000 | -0.000 | 15.376 | -0.000 | -0.000 | 0.000 |
| 97 | M1最大 | 2 | 1 | 0.000 | 0.000 | -15.775 | 0.000 | 0.000 | -0.000 |
| 97 | M2最大 | 2 | 1 | 0.000 | 0.000 | -15.775 | 0.000 | 0.000 | -0.000 |
| 97 | M3最大 | 1 | 1 | -0.000 | -0.000 | 15.376 | -0.000 | -0.000 | 0.000 |
| 97 | 合力最大 | 2 | 1 | 0.000 | 0.000 | -15.775 | 0.000 | 0.000 | -0.000 |
| 97 | N1最小 | 1 | 1 | -0.000 | -0.000 | 15.376 | -0.000 | -0.000 | 0.000 |
| 97 | N2最小 | 1 | 1 | -0.000 | -0.000 | 15.376 | -0.000 | -0.000 | 0.000 |
| 97 | N3最小 | 2 | 1 | 0.000 | 0.000 | -15.775 | 0.000 | 0.000 | -0.000 |
| 97 | M1最小 | 1 | 1 | -0.000 | -0.000 | 15.376 | -0.000 | -0.000 | 0.000 |
| 97 | M2最小 | 1 | 1 | -0.000 | -0.000 | 15.376 | -0.000 | -0.000 | 0.000 |
| 97 | M3最小 | 2 | 1 | 0.000 | 0.000 | -15.775 | 0.000 | 0.000 | -0.000 |
| 95 | N1最大 | 2 | 1 | 0.000 | -0.000 | -15.788 | 0.000 | 0.000 | 0.000 |
| 95 | N2最大 | 1 | 1 | -0.000 | 0.000 | 15.389 | -0.000 | -0.000 | -0.000 |
| 95 | N3最大 | 1 | 1 | -0.000 | 0.000 | 15.389 | -0.000 | -0.000 | -0.000 |
| 95 | M1最大 | 2 | 1 | 0.000 | -0.000 | -15.788 | 0.000 | 0.000 | 0.000 |
| 95 | M2最大 | 2 | 1 | 0.000 | -0.000 | -15.788 | 0.000 | 0.000 | 0.000 |
| 95 | M3最大 | 2 | 1 | 0.000 | -0.000 | -15.788 | 0.000 | 0.000 | 0.000 |
| 95 | 合力最大 | 2 | 1 | 0.000 | -0.000 | -15.788 | 0.000 | 0.000 | 0.000 |
| 95 | N1最小 | 1 | 1 | -0.000 | 0.000 | 15.389 | -0.000 | -0.000 | -0.000 |
| 95 | N2最小 | 2 | 1 | 0.000 | -0.000 | -15.788 | 0.000 | 0.000 | 0.000 |
| 95 | N3最小 | 2 | 1 | 0.000 | -0.000 | -15.788 | 0.000 | 0.000 | 0.000 |
| 95 | M1最小 | 1 | 1 | -0.000 | 0.000 | 15.389 | -0.000 | -0.000 | -0.000 |
| 95 | M2最小 | 1 | 1 | -0.000 | 0.000 | 15.389 | -0.000 | -0.000 | -0.000 |
| 95 | M3最小 | 1 | 1 | -0.000 | 0.000 | 15.389 | -0.000 | -0.000 | -0.000 |
| 93 | N1最大 | 1 | 1 | 0.000 | 0.000 | 9.214 | -0.000 | 0.000 | 0.000 |
| 93 | N2最大 | 1 | 1 | 0.000 | 0.000 | 9.214 | -0.000 | 0.000 | 0.000 |
| 93 | N3最大 | 1 | 1 | 0.000 | 0.000 | 9.214 | -0.000 | 0.000 | 0.000 |
| 93 | M1最大 | 2 | 1 | -0.000 | -0.000 | -9.462 | 0.000 | -0.000 | -0.000 |
| 93 | M2最大 | 1 | 1 | 0.000 | 0.000 | 9.214 | -0.000 | 0.000 | 0.000 |
| 93 | M3最大 | 1 | 1 | 0.000 | 0.000 | 9.214 | -0.000 | 0.000 | 0.000 |
| 93 | 合力最大 | 2 | 1 | -0.000 | -0.000 | -9.462 | 0.000 | -0.000 | -0.000 |
| 93 | N1最小 | 2 | 1 | -0.000 | -0.000 | -9.462 | 0.000 | -0.000 | -0.000 |
| 93 | N2最小 | 2 | 1 | -0.000 | -0.000 | -9.462 | 0.000 | -0.000 | -0.000 |
| 93 | N3最小 | 2 | 1 | -0.000 | -0.000 | -9.462 | 0.000 | -0.000 | -0.000 |
| 93 | M1最小 | 1 | 1 | 0.000 | 0.000 | 9.214 | -0.000 | 0.000 | 0.000 |
| 93 | M2最小 | 2 | 1 | -0.000 | -0.000 | -9.462 | 0.000 | -0.000 | -0.000 |
| 93 | M3最小 | 2 | 1 | -0.000 | -0.000 | -9.462 | 0.000 | -0.000 | -0.000 |
| 89 | N1最大 | 1 | 1 | 0.000 | -0.000 | 9.275 | -0.000 | 0.000 | -0.000 |
| 89 | N2最大 | 2 | 1 | -0.000 | 0.000 | -9.526 | 0.000 | -0.000 | 0.000 |
| 89 | N3最大 | 1 | 1 | 0.000 | -0.000 | 9.275 | -0.000 | 0.000 | -0.000 |
| 89 | M1最大 | 2 | 1 | -0.000 | 0.000 | -9.526 | 0.000 | -0.000 | 0.000 |
| 89 | M2最大 | 1 | 1 | 0.000 | -0.000 | 9.275 | -0.000 | 0.000 | -0.000 |
| 89 | M3最大 | 2 | 1 | -0.000 | 0.000 | -9.526 | 0.000 | -0.000 | 0.000 |
| 89 | 合力最大 | 2 | 1 | -0.000 | 0.000 | -9.526 | 0.000 | -0.000 | 0.000 |
| 89 | N1最小 | 2 | 1 | -0.000 | 0.000 | -9.526 | 0.000 | -0.000 | 0.000 |
| 89 | N2最小 | 1 | 1 | 0.000 | -0.000 | 9.275 | -0.000 | 0.000 | -0.000 |
| 89 | N3最小 | 2 | 1 | -0.000 | 0.000 | -9.526 | 0.000 | -0.000 | 0.000 |
| 89 | M1最小 | 1 | 1 | 0.000 | -0.000 | 9.275 | -0.000 | 0.000 | -0.000 |
| 89 | M2最小 | 2 | 1 | -0.000 | 0.000 | -9.526 | 0.000 | -0.000 | 0.000 |
| 89 | M3最小 | 1 | 1 | 0.000 | -0.000 | 9.275 | -0.000 | 0.000 | -0.000 |
| 87 | N1最大 | 2 | 1 | 0.000 | 0.000 | -15.807 | 0.000 | 0.000 | -0.000 |
| 87 | N2最大 | 2 | 1 | 0.000 | 0.000 | -15.807 | 0.000 | 0.000 | -0.000 |
| 87 | N3最大 | 1 | 1 | -0.000 | -0.000 | 15.407 | -0.000 | -0.000 | 0.000 |
| 87 | M1最大 | 2 | 1 | 0.000 | 0.000 | -15.807 | 0.000 | 0.000 | -0.000 |
| 87 | M2最大 | 2 | 1 | 0.000 | 0.000 | -15.807 | 0.000 | 0.000 | -0.000 |
| 87 | M3最大 | 1 | 1 | -0.000 | -0.000 | 15.407 | -0.000 | -0.000 | 0.000 |
| 87 | 合力最大 | 2 | 1 | 0.000 | 0.000 | -15.807 | 0.000 | 0.000 | -0.000 |
| 87 | N1最小 | 1 | 1 | -0.000 | -0.000 | 15.407 | -0.000 | -0.000 | 0.000 |
| 87 | N2最小 | 1 | 1 | -0.000 | -0.000 | 15.407 | -0.000 | -0.000 | 0.000 |
| 87 | N3最小 | 2 | 1 | 0.000 | 0.000 | -15.807 | 0.000 | 0.000 | -0.000 |
| 87 | M1最小 | 1 | 1 | -0.000 | -0.000 | 15.407 | -0.000 | -0.000 | 0.000 |
| 87 | M2最小 | 1 | 1 | -0.000 | -0.000 | 15.407 | -0.000 | -0.000 | 0.000 |
| 87 | M3最小 | 2 | 1 | 0.000 | 0.000 | -15.807 | 0.000 | 0.000 | -0.000 |
| 85 | N1最大 | 2 | 1 | 0.000 | -0.000 | -15.820 | 0.000 | 0.000 | 0.000 |
| 85 | N2最大 | 1 | 1 | -0.000 | 0.000 | 15.420 | -0.000 | -0.000 | -0.000 |
| 85 | N3最大 | 1 | 1 | -0.000 | 0.000 | 15.420 | -0.000 | -0.000 | -0.000 |
| 85 | M1最大 | 2 | 1 | 0.000 | -0.000 | -15.820 | 0.000 | 0.000 | 0.000 |
| 85 | M2最大 | 2 | 1 | 0.000 | -0.000 | -15.820 | 0.000 | 0.000 | 0.000 |
| 85 | M3最大 | 2 | 1 | 0.000 | -0.000 | -15.820 | 0.000 | 0.000 | 0.000 |
| 85 | 合力最大 | 2 | 1 | 0.000 | -0.000 | -15.820 | 0.000 | 0.000 | 0.000 |
| 85 | N1最小 | 1 | 1 | -0.000 | 0.000 | 15.420 | -0.000 | -0.000 | -0.000 |
| 85 | N2最小 | 2 | 1 | 0.000 | -0.000 | -15.820 | 0.000 | 0.000 | 0.000 |
| 85 | N3最小 | 2 | 1 | 0.000 | -0.000 | -15.820 | 0.000 | 0.000 | 0.000 |
| 85 | M1最小 | 1 | 1 | -0.000 | 0.000 | 15.420 | -0.000 | -0.000 | -0.000 |
| 85 | M2最小 | 1 | 1 | -0.000 | 0.000 | 15.420 | -0.000 | -0.000 | -0.000 |
| 85 | M3最小 | 1 | 1 | -0.000 | 0.000 | 15.420 | -0.000 | -0.000 | -0.000 |
| 83 | N1最大 | 1 | 1 | 0.000 | 0.000 | 9.237 | -0.000 | 0.000 | 0.000 |
| 83 | N2最大 | 1 | 1 | 0.000 | 0.000 | 9.237 | -0.000 | 0.000 | 0.000 |
| 83 | N3最大 | 1 | 1 | 0.000 | 0.000 | 9.237 | -0.000 | 0.000 | 0.000 |
| 83 | M1最大 | 2 | 1 | -0.000 | -0.000 | -9.487 | 0.000 | -0.000 | -0.000 |
| 83 | M2最大 | 1 | 1 | 0.000 | 0.000 | 9.237 | -0.000 | 0.000 | 0.000 |
| 83 | M3最大 | 1 | 1 | 0.000 | 0.000 | 9.237 | -0.000 | 0.000 | 0.000 |
| 83 | 合力最大 | 2 | 1 | -0.000 | -0.000 | -9.487 | 0.000 | -0.000 | -0.000 |
| 83 | N1最小 | 2 | 1 | -0.000 | -0.000 | -9.487 | 0.000 | -0.000 | -0.000 |
| 83 | N2最小 | 2 | 1 | -0.000 | -0.000 | -9.487 | 0.000 | -0.000 | -0.000 |
| 83 | N3最小 | 2 | 1 | -0.000 | -0.000 | -9.487 | 0.000 | -0.000 | -0.000 |
| 83 | M1最小 | 1 | 1 | 0.000 | 0.000 | 9.237 | -0.000 | 0.000 | 0.000 |
| 83 | M2最小 | 2 | 1 | -0.000 | -0.000 | -9.487 | 0.000 | -0.000 | -0.000 |
| 83 | M3最小 | 2 | 1 | -0.000 | -0.000 | -9.487 | 0.000 | -0.000 | -0.000 |
| 79 | N1最大 | 1 | 1 | 0.000 | -0.000 | 9.270 | -0.000 | 0.000 | -0.000 |
| 79 | N2最大 | 2 | 1 | -0.000 | 0.000 | -9.520 | 0.000 | -0.000 | 0.000 |
| 79 | N3最大 | 1 | 1 | 0.000 | -0.000 | 9.270 | -0.000 | 0.000 | -0.000 |
| 79 | M1最大 | 2 | 1 | -0.000 | 0.000 | -9.520 | 0.000 | -0.000 | 0.000 |
| 79 | M2最大 | 1 | 1 | 0.000 | -0.000 | 9.270 | -0.000 | 0.000 | -0.000 |
| 79 | M3最大 | 2 | 1 | -0.000 | 0.000 | -9.520 | 0.000 | -0.000 | 0.000 |
| 79 | 合力最大 | 2 | 1 | -0.000 | 0.000 | -9.520 | 0.000 | -0.000 | 0.000 |
| 79 | N1最小 | 2 | 1 | -0.000 | 0.000 | -9.520 | 0.000 | -0.000 | 0.000 |
| 79 | N2最小 | 1 | 1 | 0.000 | -0.000 | 9.270 | -0.000 | 0.000 | -0.000 |
| 79 | N3最小 | 2 | 1 | -0.000 | 0.000 | -9.520 | 0.000 | -0.000 | 0.000 |
| 79 | M1最小 | 1 | 1 | 0.000 | -0.000 | 9.270 | -0.000 | 0.000 | -0.000 |
| 79 | M2最小 | 2 | 1 | -0.000 | 0.000 | -9.520 | 0.000 | -0.000 | 0.000 |
| 79 | M3最小 | 1 | 1 | 0.000 | -0.000 | 9.270 | -0.000 | 0.000 | -0.000 |
| 77 | N1最大 | 2 | 1 | 0.000 | 0.000 | -15.800 | 0.000 | 0.000 | -0.000 |
| 77 | N2最大 | 2 | 1 | 0.000 | 0.000 | -15.800 | 0.000 | 0.000 | -0.000 |
| 77 | N3最大 | 1 | 1 | -0.000 | -0.000 | 15.400 | -0.000 | -0.000 | 0.000 |
| 77 | M1最大 | 2 | 1 | 0.000 | 0.000 | -15.800 | 0.000 | 0.000 | -0.000 |
| 77 | M2最大 | 2 | 1 | 0.000 | 0.000 | -15.800 | 0.000 | 0.000 | -0.000 |
| 77 | M3最大 | 1 | 1 | -0.000 | -0.000 | 15.400 | -0.000 | -0.000 | 0.000 |
| 77 | 合力最大 | 2 | 1 | 0.000 | 0.000 | -15.800 | 0.000 | 0.000 | -0.000 |
| 77 | N1最小 | 1 | 1 | -0.000 | -0.000 | 15.400 | -0.000 | -0.000 | 0.000 |
| 77 | N2最小 | 1 | 1 | -0.000 | -0.000 | 15.400 | -0.000 | -0.000 | 0.000 |
| 77 | N3最小 | 2 | 1 | 0.000 | 0.000 | -15.800 | 0.000 | 0.000 | -0.000 |
| 77 | M1最小 | 1 | 1 | -0.000 | -0.000 | 15.400 | -0.000 | -0.000 | 0.000 |
| 77 | M2最小 | 1 | 1 | -0.000 | -0.000 | 15.400 | -0.000 | -0.000 | 0.000 |
| 77 | M3最小 | 2 | 1 | 0.000 | 0.000 | -15.800 | 0.000 | 0.000 | -0.000 |
| 75 | N1最大 | 2 | 1 | 0.000 | -0.000 | -15.813 | 0.000 | 0.000 | 0.000 |
| 75 | N2最大 | 1 | 1 | -0.000 | 0.000 | 15.413 | -0.000 | -0.000 | -0.000 |
| 75 | N3最大 | 1 | 1 | -0.000 | 0.000 | 15.413 | -0.000 | -0.000 | -0.000 |
| 75 | M1最大 | 2 | 1 | 0.000 | -0.000 | -15.813 | 0.000 | 0.000 | 0.000 |
| 75 | M2最大 | 2 | 1 | 0.000 | -0.000 | -15.813 | 0.000 | 0.000 | 0.000 |
| 75 | M3最大 | 2 | 1 | 0.000 | -0.000 | -15.813 | 0.000 | 0.000 | 0.000 |
| 75 | 合力最大 | 2 | 1 | 0.000 | -0.000 | -15.813 | 0.000 | 0.000 | 0.000 |
| 75 | N1最小 | 1 | 1 | -0.000 | 0.000 | 15.413 | -0.000 | -0.000 | -0.000 |
| 75 | N2最小 | 2 | 1 | 0.000 | -0.000 | -15.813 | 0.000 | 0.000 | 0.000 |
| 75 | N3最小 | 2 | 1 | 0.000 | -0.000 | -15.813 | 0.000 | 0.000 | 0.000 |
| 75 | M1最小 | 1 | 1 | -0.000 | 0.000 | 15.413 | -0.000 | -0.000 | -0.000 |
| 75 | M2最小 | 1 | 1 | -0.000 | 0.000 | 15.413 | -0.000 | -0.000 | -0.000 |
| 75 | M3最小 | 1 | 1 | -0.000 | 0.000 | 15.413 | -0.000 | -0.000 | -0.000 |
| 73 | N1最大 | 1 | 1 | 0.000 | 0.000 | 9.231 | -0.000 | 0.000 | 0.000 |
| 73 | N2最大 | 1 | 1 | 0.000 | 0.000 | 9.231 | -0.000 | 0.000 | 0.000 |
| 73 | N3最大 | 1 | 1 | 0.000 | 0.000 | 9.231 | -0.000 | 0.000 | 0.000 |
| 73 | M1最大 | 2 | 1 | -0.000 | -0.000 | -9.481 | 0.000 | -0.000 | -0.000 |
| 73 | M2最大 | 1 | 1 | 0.000 | 0.000 | 9.231 | -0.000 | 0.000 | 0.000 |
| 73 | M3最大 | 1 | 1 | 0.000 | 0.000 | 9.231 | -0.000 | 0.000 | 0.000 |
| 73 | 合力最大 | 2 | 1 | -0.000 | -0.000 | -9.481 | 0.000 | -0.000 | -0.000 |
| 73 | N1最小 | 2 | 1 | -0.000 | -0.000 | -9.481 | 0.000 | -0.000 | -0.000 |
| 73 | N2最小 | 2 | 1 | -0.000 | -0.000 | -9.481 | 0.000 | -0.000 | -0.000 |
| 73 | N3最小 | 2 | 1 | -0.000 | -0.000 | -9.481 | 0.000 | -0.000 | -0.000 |
| 73 | M1最小 | 1 | 1 | 0.000 | 0.000 | 9.231 | -0.000 | 0.000 | 0.000 |
| 73 | M2最小 | 2 | 1 | -0.000 | -0.000 | -9.481 | 0.000 | -0.000 | -0.000 |
| 73 | M3最小 | 2 | 1 | -0.000 | -0.000 | -9.481 | 0.000 | -0.000 | -0.000 |
| 69 | N1最大 | 1 | 1 | 0.000 | -0.000 | 9.270 | -0.000 | 0.000 | -0.000 |
| 69 | N2最大 | 2 | 1 | -0.000 | 0.000 | -9.520 | 0.000 | -0.000 | 0.000 |
| 69 | N3最大 | 1 | 1 | 0.000 | -0.000 | 9.270 | -0.000 | 0.000 | -0.000 |
| 69 | M1最大 | 2 | 1 | -0.000 | 0.000 | -9.520 | 0.000 | -0.000 | 0.000 |
| 69 | M2最大 | 1 | 1 | 0.000 | -0.000 | 9.270 | -0.000 | 0.000 | -0.000 |
| 69 | M3最大 | 2 | 1 | -0.000 | 0.000 | -9.520 | 0.000 | -0.000 | 0.000 |
| 69 | 合力最大 | 2 | 1 | -0.000 | 0.000 | -9.520 | 0.000 | -0.000 | 0.000 |
| 69 | N1最小 | 2 | 1 | -0.000 | 0.000 | -9.520 | 0.000 | -0.000 | 0.000 |
| 69 | N2最小 | 1 | 1 | 0.000 | -0.000 | 9.270 | -0.000 | 0.000 | -0.000 |
| 69 | N3最小 | 2 | 1 | -0.000 | 0.000 | -9.520 | 0.000 | -0.000 | 0.000 |
| 69 | M1最小 | 1 | 1 | 0.000 | -0.000 | 9.270 | -0.000 | 0.000 | -0.000 |
| 69 | M2最小 | 2 | 1 | -0.000 | 0.000 | -9.520 | 0.000 | -0.000 | 0.000 |
| 69 | M3最小 | 1 | 1 | 0.000 | -0.000 | 9.270 | -0.000 | 0.000 | -0.000 |
| 67 | N1最大 | 2 | 1 | 0.000 | 0.000 | -15.800 | 0.000 | 0.000 | -0.000 |
| 67 | N2最大 | 2 | 1 | 0.000 | 0.000 | -15.800 | 0.000 | 0.000 | -0.000 |
| 67 | N3最大 | 1 | 1 | -0.000 | -0.000 | 15.400 | -0.000 | -0.000 | 0.000 |
| 67 | M1最大 | 2 | 1 | 0.000 | 0.000 | -15.800 | 0.000 | 0.000 | -0.000 |
| 67 | M2最大 | 2 | 1 | 0.000 | 0.000 | -15.800 | 0.000 | 0.000 | -0.000 |
| 67 | M3最大 | 1 | 1 | -0.000 | -0.000 | 15.400 | -0.000 | -0.000 | 0.000 |
| 67 | 合力最大 | 2 | 1 | 0.000 | 0.000 | -15.800 | 0.000 | 0.000 | -0.000 |
| 67 | N1最小 | 1 | 1 | -0.000 | -0.000 | 15.400 | -0.000 | -0.000 | 0.000 |
| 67 | N2最小 | 1 | 1 | -0.000 | -0.000 | 15.400 | -0.000 | -0.000 | 0.000 |
| 67 | N3最小 | 2 | 1 | 0.000 | 0.000 | -15.800 | 0.000 | 0.000 | -0.000 |
| 67 | M1最小 | 1 | 1 | -0.000 | -0.000 | 15.400 | -0.000 | -0.000 | 0.000 |
| 67 | M2最小 | 1 | 1 | -0.000 | -0.000 | 15.400 | -0.000 | -0.000 | 0.000 |
| 67 | M3最小 | 2 | 1 | 0.000 | 0.000 | -15.800 | 0.000 | 0.000 | -0.000 |
| 65 | N1最大 | 2 | 1 | 0.000 | -0.000 | -15.813 | 0.000 | 0.000 | 0.000 |
| 65 | N2最大 | 1 | 1 | -0.000 | 0.000 | 15.413 | -0.000 | -0.000 | -0.000 |
| 65 | N3最大 | 1 | 1 | -0.000 | 0.000 | 15.413 | -0.000 | -0.000 | -0.000 |
| 65 | M1最大 | 2 | 1 | 0.000 | -0.000 | -15.813 | 0.000 | 0.000 | 0.000 |
| 65 | M2最大 | 2 | 1 | 0.000 | -0.000 | -15.813 | 0.000 | 0.000 | 0.000 |
| 65 | M3最大 | 2 | 1 | 0.000 | -0.000 | -15.813 | 0.000 | 0.000 | 0.000 |
| 65 | 合力最大 | 2 | 1 | 0.000 | -0.000 | -15.813 | 0.000 | 0.000 | 0.000 |
| 65 | N1最小 | 1 | 1 | -0.000 | 0.000 | 15.413 | -0.000 | -0.000 | -0.000 |
| 65 | N2最小 | 2 | 1 | 0.000 | -0.000 | -15.813 | 0.000 | 0.000 | 0.000 |
| 65 | N3最小 | 2 | 1 | 0.000 | -0.000 | -15.813 | 0.000 | 0.000 | 0.000 |
| 65 | M1最小 | 1 | 1 | -0.000 | 0.000 | 15.413 | -0.000 | -0.000 | -0.000 |
| 65 | M2最小 | 1 | 1 | -0.000 | 0.000 | 15.413 | -0.000 | -0.000 | -0.000 |
| 65 | M3最小 | 1 | 1 | -0.000 | 0.000 | 15.413 | -0.000 | -0.000 | -0.000 |
| 63 | N1最大 | 1 | 1 | 0.000 | 0.000 | 9.231 | -0.000 | 0.000 | 0.000 |
| 63 | N2最大 | 1 | 1 | 0.000 | 0.000 | 9.231 | -0.000 | 0.000 | 0.000 |
| 63 | N3最大 | 1 | 1 | 0.000 | 0.000 | 9.231 | -0.000 | 0.000 | 0.000 |
| 63 | M1最大 | 2 | 1 | -0.000 | -0.000 | -9.481 | 0.000 | -0.000 | -0.000 |
| 63 | M2最大 | 1 | 1 | 0.000 | 0.000 | 9.231 | -0.000 | 0.000 | 0.000 |
| 63 | M3最大 | 1 | 1 | 0.000 | 0.000 | 9.231 | -0.000 | 0.000 | 0.000 |
| 63 | 合力最大 | 2 | 1 | -0.000 | -0.000 | -9.481 | 0.000 | -0.000 | -0.000 |
| 63 | N1最小 | 2 | 1 | -0.000 | -0.000 | -9.481 | 0.000 | -0.000 | -0.000 |
| 63 | N2最小 | 2 | 1 | -0.000 | -0.000 | -9.481 | 0.000 | -0.000 | -0.000 |
| 63 | N3最小 | 2 | 1 | -0.000 | -0.000 | -9.481 | 0.000 | -0.000 | -0.000 |
| 63 | M1最小 | 1 | 1 | 0.000 | 0.000 | 9.231 | -0.000 | 0.000 | 0.000 |
| 63 | M2最小 | 2 | 1 | -0.000 | -0.000 | -9.481 | 0.000 | -0.000 | -0.000 |
| 63 | M3最小 | 2 | 1 | -0.000 | -0.000 | -9.481 | 0.000 | -0.000 | -0.000 |
| 59 | N1最大 | 1 | 1 | 0.000 | -0.000 | 9.275 | -0.000 | 0.000 | -0.000 |
| 59 | N2最大 | 2 | 1 | -0.000 | 0.000 | -9.526 | 0.000 | -0.000 | 0.000 |
| 59 | N3最大 | 1 | 1 | 0.000 | -0.000 | 9.275 | -0.000 | 0.000 | -0.000 |
| 59 | M1最大 | 2 | 1 | -0.000 | 0.000 | -9.526 | 0.000 | -0.000 | 0.000 |
| 59 | M2最大 | 1 | 1 | 0.000 | -0.000 | 9.275 | -0.000 | 0.000 | -0.000 |
| 59 | M3最大 | 2 | 1 | -0.000 | 0.000 | -9.526 | 0.000 | -0.000 | 0.000 |
| 59 | 合力最大 | 2 | 1 | -0.000 | 0.000 | -9.526 | 0.000 | -0.000 | 0.000 |
| 59 | N1最小 | 2 | 1 | -0.000 | 0.000 | -9.526 | 0.000 | -0.000 | 0.000 |
| 59 | N2最小 | 1 | 1 | 0.000 | -0.000 | 9.275 | -0.000 | 0.000 | -0.000 |
| 59 | N3最小 | 2 | 1 | -0.000 | 0.000 | -9.526 | 0.000 | -0.000 | 0.000 |
| 59 | M1最小 | 1 | 1 | 0.000 | -0.000 | 9.275 | -0.000 | 0.000 | -0.000 |
| 59 | M2最小 | 2 | 1 | -0.000 | 0.000 | -9.526 | 0.000 | -0.000 | 0.000 |
| 59 | M3最小 | 1 | 1 | 0.000 | -0.000 | 9.275 | -0.000 | 0.000 | -0.000 |
| 57 | N1最大 | 2 | 1 | 0.000 | 0.000 | -15.807 | 0.000 | 0.000 | -0.000 |
| 57 | N2最大 | 2 | 1 | 0.000 | 0.000 | -15.807 | 0.000 | 0.000 | -0.000 |
| 57 | N3最大 | 1 | 1 | -0.000 | -0.000 | 15.407 | -0.000 | -0.000 | 0.000 |
| 57 | M1最大 | 2 | 1 | 0.000 | 0.000 | -15.807 | 0.000 | 0.000 | -0.000 |
| 57 | M2最大 | 2 | 1 | 0.000 | 0.000 | -15.807 | 0.000 | 0.000 | -0.000 |
| 57 | M3最大 | 1 | 1 | -0.000 | -0.000 | 15.407 | -0.000 | -0.000 | 0.000 |
| 57 | 合力最大 | 2 | 1 | 0.000 | 0.000 | -15.807 | 0.000 | 0.000 | -0.000 |
| 57 | N1最小 | 1 | 1 | -0.000 | -0.000 | 15.407 | -0.000 | -0.000 | 0.000 |
| 57 | N2最小 | 1 | 1 | -0.000 | -0.000 | 15.407 | -0.000 | -0.000 | 0.000 |
| 57 | N3最小 | 2 | 1 | 0.000 | 0.000 | -15.807 | 0.000 | 0.000 | -0.000 |
| 57 | M1最小 | 1 | 1 | -0.000 | -0.000 | 15.407 | -0.000 | -0.000 | 0.000 |
| 57 | M2最小 | 1 | 1 | -0.000 | -0.000 | 15.407 | -0.000 | -0.000 | 0.000 |
| 57 | M3最小 | 2 | 1 | 0.000 | 0.000 | -15.807 | 0.000 | 0.000 | -0.000 |
| 55 | N1最大 | 2 | 1 | 0.000 | -0.000 | -15.820 | 0.000 | 0.000 | 0.000 |
| 55 | N2最大 | 1 | 1 | -0.000 | 0.000 | 15.420 | -0.000 | -0.000 | -0.000 |
| 55 | N3最大 | 1 | 1 | -0.000 | 0.000 | 15.420 | -0.000 | -0.000 | -0.000 |
| 55 | M1最大 | 2 | 1 | 0.000 | -0.000 | -15.820 | 0.000 | 0.000 | 0.000 |
| 55 | M2最大 | 2 | 1 | 0.000 | -0.000 | -15.820 | 0.000 | 0.000 | 0.000 |
| 55 | M3最大 | 2 | 1 | 0.000 | -0.000 | -15.820 | 0.000 | 0.000 | 0.000 |
| 55 | 合力最大 | 2 | 1 | 0.000 | -0.000 | -15.820 | 0.000 | 0.000 | 0.000 |
| 55 | N1最小 | 1 | 1 | -0.000 | 0.000 | 15.420 | -0.000 | -0.000 | -0.000 |
| 55 | N2最小 | 2 | 1 | 0.000 | -0.000 | -15.820 | 0.000 | 0.000 | 0.000 |
| 55 | N3最小 | 2 | 1 | 0.000 | -0.000 | -15.820 | 0.000 | 0.000 | 0.000 |
| 55 | M1最小 | 1 | 1 | -0.000 | 0.000 | 15.420 | -0.000 | -0.000 | -0.000 |
| 55 | M2最小 | 1 | 1 | -0.000 | 0.000 | 15.420 | -0.000 | -0.000 | -0.000 |
| 55 | M3最小 | 1 | 1 | -0.000 | 0.000 | 15.420 | -0.000 | -0.000 | -0.000 |
| 53 | N1最大 | 1 | 1 | 0.000 | 0.000 | 9.237 | -0.000 | 0.000 | 0.000 |
| 53 | N2最大 | 1 | 1 | 0.000 | 0.000 | 9.237 | -0.000 | 0.000 | 0.000 |
| 53 | N3最大 | 1 | 1 | 0.000 | 0.000 | 9.237 | -0.000 | 0.000 | 0.000 |
| 53 | M1最大 | 2 | 1 | -0.000 | -0.000 | -9.487 | 0.000 | -0.000 | -0.000 |
| 53 | M2最大 | 1 | 1 | 0.000 | 0.000 | 9.237 | -0.000 | 0.000 | 0.000 |
| 53 | M3最大 | 1 | 1 | 0.000 | 0.000 | 9.237 | -0.000 | 0.000 | 0.000 |
| 53 | 合力最大 | 2 | 1 | -0.000 | -0.000 | -9.487 | 0.000 | -0.000 | -0.000 |
| 53 | N1最小 | 2 | 1 | -0.000 | -0.000 | -9.487 | 0.000 | -0.000 | -0.000 |
| 53 | N2最小 | 2 | 1 | -0.000 | -0.000 | -9.487 | 0.000 | -0.000 | -0.000 |
| 53 | N3最小 | 2 | 1 | -0.000 | -0.000 | -9.487 | 0.000 | -0.000 | -0.000 |
| 53 | M1最小 | 1 | 1 | 0.000 | 0.000 | 9.237 | -0.000 | 0.000 | 0.000 |
| 53 | M2最小 | 2 | 1 | -0.000 | -0.000 | -9.487 | 0.000 | -0.000 | -0.000 |
| 53 | M3最小 | 2 | 1 | -0.000 | -0.000 | -9.487 | 0.000 | -0.000 | -0.000 |
| 49 | N1最大 | 1 | 1 | 0.000 | -0.000 | 9.252 | -0.000 | 0.000 | -0.000 |
| 49 | N2最大 | 2 | 1 | -0.000 | 0.000 | -9.502 | 0.000 | -0.000 | 0.000 |
| 49 | N3最大 | 1 | 1 | 0.000 | -0.000 | 9.252 | -0.000 | 0.000 | -0.000 |
| 49 | M1最大 | 2 | 1 | -0.000 | 0.000 | -9.502 | 0.000 | -0.000 | 0.000 |
| 49 | M2最大 | 1 | 1 | 0.000 | -0.000 | 9.252 | -0.000 | 0.000 | -0.000 |
| 49 | M3最大 | 2 | 1 | -0.000 | 0.000 | -9.502 | 0.000 | -0.000 | 0.000 |
| 49 | 合力最大 | 2 | 1 | -0.000 | 0.000 | -9.502 | 0.000 | -0.000 | 0.000 |
| 49 | N1最小 | 2 | 1 | -0.000 | 0.000 | -9.502 | 0.000 | -0.000 | 0.000 |
| 49 | N2最小 | 1 | 1 | 0.000 | -0.000 | 9.252 | -0.000 | 0.000 | -0.000 |
| 49 | N3最小 | 2 | 1 | -0.000 | 0.000 | -9.502 | 0.000 | -0.000 | 0.000 |
| 49 | M1最小 | 1 | 1 | 0.000 | -0.000 | 9.252 | -0.000 | 0.000 | -0.000 |
| 49 | M2最小 | 2 | 1 | -0.000 | 0.000 | -9.502 | 0.000 | -0.000 | 0.000 |
| 49 | M3最小 | 1 | 1 | 0.000 | -0.000 | 9.252 | -0.000 | 0.000 | -0.000 |
| 47 | N1最大 | 2 | 1 | 0.000 | 0.000 | -15.775 | 0.000 | 0.000 | -0.000 |
| 47 | N2最大 | 2 | 1 | 0.000 | 0.000 | -15.775 | 0.000 | 0.000 | -0.000 |
| 47 | N3最大 | 1 | 1 | -0.000 | -0.000 | 15.376 | -0.000 | -0.000 | 0.000 |
| 47 | M1最大 | 2 | 1 | 0.000 | 0.000 | -15.775 | 0.000 | 0.000 | -0.000 |
| 47 | M2最大 | 2 | 1 | 0.000 | 0.000 | -15.775 | 0.000 | 0.000 | -0.000 |
| 47 | M3最大 | 1 | 1 | -0.000 | -0.000 | 15.376 | -0.000 | -0.000 | 0.000 |
| 47 | 合力最大 | 2 | 1 | 0.000 | 0.000 | -15.775 | 0.000 | 0.000 | -0.000 |
| 47 | N1最小 | 1 | 1 | -0.000 | -0.000 | 15.376 | -0.000 | -0.000 | 0.000 |
| 47 | N2最小 | 1 | 1 | -0.000 | -0.000 | 15.376 | -0.000 | -0.000 | 0.000 |
| 47 | N3最小 | 2 | 1 | 0.000 | 0.000 | -15.775 | 0.000 | 0.000 | -0.000 |
| 47 | M1最小 | 1 | 1 | -0.000 | -0.000 | 15.376 | -0.000 | -0.000 | 0.000 |
| 47 | M2最小 | 1 | 1 | -0.000 | -0.000 | 15.376 | -0.000 | -0.000 | 0.000 |
| 47 | M3最小 | 2 | 1 | 0.000 | 0.000 | -15.775 | 0.000 | 0.000 | -0.000 |
| 45 | N1最大 | 2 | 1 | 0.000 | -0.000 | -15.788 | 0.000 | 0.000 | 0.000 |
| 45 | N2最大 | 1 | 1 | -0.000 | 0.000 | 15.389 | -0.000 | -0.000 | -0.000 |
| 45 | N3最大 | 1 | 1 | -0.000 | 0.000 | 15.389 | -0.000 | -0.000 | -0.000 |
| 45 | M1最大 | 2 | 1 | 0.000 | -0.000 | -15.788 | 0.000 | 0.000 | 0.000 |
| 45 | M2最大 | 2 | 1 | 0.000 | -0.000 | -15.788 | 0.000 | 0.000 | 0.000 |
| 45 | M3最大 | 2 | 1 | 0.000 | -0.000 | -15.788 | 0.000 | 0.000 | 0.000 |
| 45 | 合力最大 | 2 | 1 | 0.000 | -0.000 | -15.788 | 0.000 | 0.000 | 0.000 |
| 45 | N1最小 | 1 | 1 | -0.000 | 0.000 | 15.389 | -0.000 | -0.000 | -0.000 |
| 45 | N2最小 | 2 | 1 | 0.000 | -0.000 | -15.788 | 0.000 | 0.000 | 0.000 |
| 45 | N3最小 | 2 | 1 | 0.000 | -0.000 | -15.788 | 0.000 | 0.000 | 0.000 |
| 45 | M1最小 | 1 | 1 | -0.000 | 0.000 | 15.389 | -0.000 | -0.000 | -0.000 |
| 45 | M2最小 | 1 | 1 | -0.000 | 0.000 | 15.389 | -0.000 | -0.000 | -0.000 |
| 45 | M3最小 | 1 | 1 | -0.000 | 0.000 | 15.389 | -0.000 | -0.000 | -0.000 |
| 43 | N1最大 | 1 | 1 | 0.000 | 0.000 | 9.214 | -0.000 | 0.000 | 0.000 |
| 43 | N2最大 | 1 | 1 | 0.000 | 0.000 | 9.214 | -0.000 | 0.000 | 0.000 |
| 43 | N3最大 | 1 | 1 | 0.000 | 0.000 | 9.214 | -0.000 | 0.000 | 0.000 |
| 43 | M1最大 | 2 | 1 | -0.000 | -0.000 | -9.462 | 0.000 | -0.000 | -0.000 |
| 43 | M2最大 | 1 | 1 | 0.000 | 0.000 | 9.214 | -0.000 | 0.000 | 0.000 |
| 43 | M3最大 | 1 | 1 | 0.000 | 0.000 | 9.214 | -0.000 | 0.000 | 0.000 |
| 43 | 合力最大 | 2 | 1 | -0.000 | -0.000 | -9.462 | 0.000 | -0.000 | -0.000 |
| 43 | N1最小 | 2 | 1 | -0.000 | -0.000 | -9.462 | 0.000 | -0.000 | -0.000 |
| 43 | N2最小 | 2 | 1 | -0.000 | -0.000 | -9.462 | 0.000 | -0.000 | -0.000 |
| 43 | N3最小 | 2 | 1 | -0.000 | -0.000 | -9.462 | 0.000 | -0.000 | -0.000 |
| 43 | M1最小 | 1 | 1 | 0.000 | 0.000 | 9.214 | -0.000 | 0.000 | 0.000 |
| 43 | M2最小 | 2 | 1 | -0.000 | -0.000 | -9.462 | 0.000 | -0.000 | -0.000 |
| 43 | M3最小 | 2 | 1 | -0.000 | -0.000 | -9.462 | 0.000 | -0.000 | -0.000 |
| 39 | N1最大 | 1 | 1 | 0.000 | -0.000 | 9.345 | -0.000 | 0.000 | -0.000 |
| 39 | N2最大 | 2 | 1 | -0.000 | 0.000 | -9.598 | 0.000 | -0.000 | 0.000 |
| 39 | N3最大 | 1 | 1 | 0.000 | -0.000 | 9.345 | -0.000 | 0.000 | -0.000 |
| 39 | M1最大 | 2 | 1 | -0.000 | 0.000 | -9.598 | 0.000 | -0.000 | 0.000 |
| 39 | M2最大 | 1 | 1 | 0.000 | -0.000 | 9.345 | -0.000 | 0.000 | -0.000 |
| 39 | M3最大 | 2 | 1 | -0.000 | 0.000 | -9.598 | 0.000 | -0.000 | 0.000 |
| 39 | 合力最大 | 2 | 1 | -0.000 | 0.000 | -9.598 | 0.000 | -0.000 | 0.000 |
| 39 | N1最小 | 2 | 1 | -0.000 | 0.000 | -9.598 | 0.000 | -0.000 | 0.000 |
| 39 | N2最小 | 1 | 1 | 0.000 | -0.000 | 9.345 | -0.000 | 0.000 | -0.000 |
| 39 | N3最小 | 2 | 1 | -0.000 | 0.000 | -9.598 | 0.000 | -0.000 | 0.000 |
| 39 | M1最小 | 1 | 1 | 0.000 | -0.000 | 9.345 | -0.000 | 0.000 | -0.000 |
| 39 | M2最小 | 2 | 1 | -0.000 | 0.000 | -9.598 | 0.000 | -0.000 | 0.000 |
| 39 | M3最小 | 1 | 1 | 0.000 | -0.000 | 9.345 | -0.000 | 0.000 | -0.000 |
| 37 | N1最大 | 2 | 1 | 0.000 | 0.000 | -15.910 | 0.000 | 0.000 | -0.000 |
| 37 | N2最大 | 2 | 1 | 0.000 | 0.000 | -15.910 | 0.000 | 0.000 | -0.000 |
| 37 | N3最大 | 1 | 1 | -0.000 | -0.000 | 15.506 | -0.000 | -0.000 | 0.000 |
| 37 | M1最大 | 2 | 1 | 0.000 | 0.000 | -15.910 | 0.000 | 0.000 | -0.000 |
| 37 | M2最大 | 2 | 1 | 0.000 | 0.000 | -15.910 | 0.000 | 0.000 | -0.000 |
| 37 | M3最大 | 1 | 1 | -0.000 | -0.000 | 15.506 | -0.000 | -0.000 | 0.000 |
| 37 | 合力最大 | 2 | 1 | 0.000 | 0.000 | -15.910 | 0.000 | 0.000 | -0.000 |
| 37 | N1最小 | 1 | 1 | -0.000 | -0.000 | 15.506 | -0.000 | -0.000 | 0.000 |
| 37 | N2最小 | 1 | 1 | -0.000 | -0.000 | 15.506 | -0.000 | -0.000 | 0.000 |
| 37 | N3最小 | 2 | 1 | 0.000 | 0.000 | -15.910 | 0.000 | 0.000 | -0.000 |
| 37 | M1最小 | 1 | 1 | -0.000 | -0.000 | 15.506 | -0.000 | -0.000 | 0.000 |
| 37 | M2最小 | 1 | 1 | -0.000 | -0.000 | 15.506 | -0.000 | -0.000 | 0.000 |
| 37 | M3最小 | 2 | 1 | 0.000 | 0.000 | -15.910 | 0.000 | 0.000 | -0.000 |
| 35 | N1最大 | 2 | 1 | 0.000 | -0.000 | -15.923 | 0.000 | 0.000 | 0.000 |
| 35 | N2最大 | 1 | 1 | -0.000 | 0.000 | 15.519 | -0.000 | -0.000 | -0.000 |
| 35 | N3最大 | 1 | 1 | -0.000 | 0.000 | 15.519 | -0.000 | -0.000 | -0.000 |
| 35 | M1最大 | 2 | 1 | 0.000 | -0.000 | -15.923 | 0.000 | 0.000 | 0.000 |
| 35 | M2最大 | 2 | 1 | 0.000 | -0.000 | -15.923 | 0.000 | 0.000 | 0.000 |
| 35 | M3最大 | 2 | 1 | 0.000 | -0.000 | -15.923 | 0.000 | 0.000 | 0.000 |
| 35 | 合力最大 | 2 | 1 | 0.000 | -0.000 | -15.923 | 0.000 | 0.000 | 0.000 |
| 35 | N1最小 | 1 | 1 | -0.000 | 0.000 | 15.519 | -0.000 | -0.000 | -0.000 |
| 35 | N2最小 | 2 | 1 | 0.000 | -0.000 | -15.923 | 0.000 | 0.000 | 0.000 |
| 35 | N3最小 | 2 | 1 | 0.000 | -0.000 | -15.923 | 0.000 | 0.000 | 0.000 |
| 35 | M1最小 | 1 | 1 | -0.000 | 0.000 | 15.519 | -0.000 | -0.000 | -0.000 |
| 35 | M2最小 | 1 | 1 | -0.000 | 0.000 | 15.519 | -0.000 | -0.000 | -0.000 |
| 35 | M3最小 | 1 | 1 | -0.000 | 0.000 | 15.519 | -0.000 | -0.000 | -0.000 |
| 33 | N1最大 | 1 | 1 | 0.000 | 0.000 | 9.307 | -0.000 | 0.000 | 0.000 |
| 33 | N2最大 | 1 | 1 | 0.000 | 0.000 | 9.307 | -0.000 | 0.000 | 0.000 |
| 33 | N3最大 | 1 | 1 | 0.000 | 0.000 | 9.307 | -0.000 | 0.000 | 0.000 |
| 33 | M1最大 | 2 | 1 | -0.000 | -0.000 | -9.559 | 0.000 | -0.000 | -0.000 |
| 33 | M2最大 | 1 | 1 | 0.000 | 0.000 | 9.307 | -0.000 | 0.000 | 0.000 |
| 33 | M3最大 | 1 | 1 | 0.000 | 0.000 | 9.307 | -0.000 | 0.000 | 0.000 |
| 33 | 合力最大 | 2 | 1 | -0.000 | -0.000 | -9.559 | 0.000 | -0.000 | -0.000 |
| 33 | N1最小 | 2 | 1 | -0.000 | -0.000 | -9.559 | 0.000 | -0.000 | -0.000 |
| 33 | N2最小 | 2 | 1 | -0.000 | -0.000 | -9.559 | 0.000 | -0.000 | -0.000 |
| 33 | N3最小 | 2 | 1 | -0.000 | -0.000 | -9.559 | 0.000 | -0.000 | -0.000 |
| 33 | M1最小 | 1 | 1 | 0.000 | 0.000 | 9.307 | -0.000 | 0.000 | 0.000 |
| 33 | M2最小 | 2 | 1 | -0.000 | -0.000 | -9.559 | 0.000 | -0.000 | -0.000 |
| 33 | M3最小 | 2 | 1 | -0.000 | -0.000 | -9.559 | 0.000 | -0.000 | -0.000 |
| 29 | N1最大 | 1 | 1 | 0.000 | -0.000 | 8.977 | -0.000 | 0.000 | 0.000 |
| 29 | N2最大 | 2 | 1 | -0.000 | 0.000 | -9.216 | 0.000 | -0.000 | -0.000 |
| 29 | N3最大 | 1 | 1 | 0.000 | -0.000 | 8.977 | -0.000 | 0.000 | 0.000 |
| 29 | M1最大 | 2 | 1 | -0.000 | 0.000 | -9.216 | 0.000 | -0.000 | -0.000 |
| 29 | M2最大 | 1 | 1 | 0.000 | -0.000 | 8.977 | -0.000 | 0.000 | 0.000 |
| 29 | M3最大 | 1 | 1 | 0.000 | -0.000 | 8.977 | -0.000 | 0.000 | 0.000 |
| 29 | 合力最大 | 2 | 1 | -0.000 | 0.000 | -9.216 | 0.000 | -0.000 | -0.000 |
| 29 | N1最小 | 2 | 1 | -0.000 | 0.000 | -9.216 | 0.000 | -0.000 | -0.000 |
| 29 | N2最小 | 1 | 1 | 0.000 | -0.000 | 8.977 | -0.000 | 0.000 | 0.000 |
| 29 | N3最小 | 2 | 1 | -0.000 | 0.000 | -9.216 | 0.000 | -0.000 | -0.000 |
| 29 | M1最小 | 1 | 1 | 0.000 | -0.000 | 8.977 | -0.000 | 0.000 | 0.000 |
| 29 | M2最小 | 2 | 1 | -0.000 | 0.000 | -9.216 | 0.000 | -0.000 | -0.000 |
| 29 | M3最小 | 2 | 1 | -0.000 | 0.000 | -9.216 | 0.000 | -0.000 | -0.000 |
| 27 | N1最大 | 2 | 1 | 0.000 | 0.000 | -15.340 | 0.000 | 0.000 | -0.000 |
| 27 | N2最大 | 2 | 1 | 0.000 | 0.000 | -15.340 | 0.000 | 0.000 | -0.000 |
| 27 | N3最大 | 1 | 1 | -0.000 | -0.000 | 14.958 | -0.000 | -0.000 | 0.000 |
| 27 | M1最大 | 2 | 1 | 0.000 | 0.000 | -15.340 | 0.000 | 0.000 | -0.000 |
| 27 | M2最大 | 2 | 1 | 0.000 | 0.000 | -15.340 | 0.000 | 0.000 | -0.000 |
| 27 | M3最大 | 1 | 1 | -0.000 | -0.000 | 14.958 | -0.000 | -0.000 | 0.000 |
| 27 | 合力最大 | 2 | 1 | 0.000 | 0.000 | -15.340 | 0.000 | 0.000 | -0.000 |
| 27 | N1最小 | 1 | 1 | -0.000 | -0.000 | 14.958 | -0.000 | -0.000 | 0.000 |
| 27 | N2最小 | 1 | 1 | -0.000 | -0.000 | 14.958 | -0.000 | -0.000 | 0.000 |
| 27 | N3最小 | 2 | 1 | 0.000 | 0.000 | -15.340 | 0.000 | 0.000 | -0.000 |
| 27 | M1最小 | 1 | 1 | -0.000 | -0.000 | 14.958 | -0.000 | -0.000 | 0.000 |
| 27 | M2最小 | 1 | 1 | -0.000 | -0.000 | 14.958 | -0.000 | -0.000 | 0.000 |
| 27 | M3最小 | 2 | 1 | 0.000 | 0.000 | -15.340 | 0.000 | 0.000 | -0.000 |
| 25 | N1最大 | 2 | 1 | 0.000 | -0.000 | -15.353 | 0.000 | 0.000 | -0.000 |
| 25 | N2最大 | 1 | 1 | -0.000 | 0.000 | 14.970 | -0.000 | -0.000 | 0.000 |
| 25 | N3最大 | 1 | 1 | -0.000 | 0.000 | 14.970 | -0.000 | -0.000 | 0.000 |
| 25 | M1最大 | 2 | 1 | 0.000 | -0.000 | -15.353 | 0.000 | 0.000 | -0.000 |
| 25 | M2最大 | 2 | 1 | 0.000 | -0.000 | -15.353 | 0.000 | 0.000 | -0.000 |
| 25 | M3最大 | 1 | 1 | -0.000 | 0.000 | 14.970 | -0.000 | -0.000 | 0.000 |
| 25 | 合力最大 | 2 | 1 | 0.000 | -0.000 | -15.353 | 0.000 | 0.000 | -0.000 |
| 25 | N1最小 | 1 | 1 | -0.000 | 0.000 | 14.970 | -0.000 | -0.000 | 0.000 |
| 25 | N2最小 | 2 | 1 | 0.000 | -0.000 | -15.353 | 0.000 | 0.000 | -0.000 |
| 25 | N3最小 | 2 | 1 | 0.000 | -0.000 | -15.353 | 0.000 | 0.000 | -0.000 |
| 25 | M1最小 | 1 | 1 | -0.000 | 0.000 | 14.970 | -0.000 | -0.000 | 0.000 |
| 25 | M2最小 | 1 | 1 | -0.000 | 0.000 | 14.970 | -0.000 | -0.000 | 0.000 |
| 25 | M3最小 | 2 | 1 | 0.000 | -0.000 | -15.353 | 0.000 | 0.000 | -0.000 |
| 23 | N1最大 | 1 | 1 | 0.000 | 0.000 | 8.938 | -0.000 | 0.000 | -0.000 |
| 23 | N2最大 | 1 | 1 | 0.000 | 0.000 | 8.938 | -0.000 | 0.000 | -0.000 |
| 23 | N3最大 | 1 | 1 | 0.000 | 0.000 | 8.938 | -0.000 | 0.000 | -0.000 |
| 23 | M1最大 | 2 | 1 | -0.000 | -0.000 | -9.176 | 0.000 | -0.000 | -0.000 |
| 23 | M2最大 | 1 | 1 | 0.000 | 0.000 | 8.938 | -0.000 | 0.000 | -0.000 |
| 23 | M3最大 | 2 | 1 | -0.000 | -0.000 | -9.176 | 0.000 | -0.000 | -0.000 |
| 23 | 合力最大 | 2 | 1 | -0.000 | -0.000 | -9.176 | 0.000 | -0.000 | -0.000 |
| 23 | N1最小 | 2 | 1 | -0.000 | -0.000 | -9.176 | 0.000 | -0.000 | -0.000 |
| 23 | N2最小 | 2 | 1 | -0.000 | -0.000 | -9.176 | 0.000 | -0.000 | -0.000 |
| 23 | N3最小 | 2 | 1 | -0.000 | -0.000 | -9.176 | 0.000 | -0.000 | -0.000 |
| 23 | M1最小 | 1 | 1 | 0.000 | 0.000 | 8.938 | -0.000 | 0.000 | -0.000 |
| 23 | M2最小 | 2 | 1 | -0.000 | -0.000 | -9.176 | 0.000 | -0.000 | -0.000 |
| 23 | M3最小 | 1 | 1 | 0.000 | 0.000 | 8.938 | -0.000 | 0.000 | -0.000 |
| 19 | N1最大 | 2 | 1 | 0.000 | 0.000 | -10.735 | 0.000 | 0.000 | 0.000 |
| 19 | N2最大 | 2 | 1 | 0.000 | 0.000 | -10.735 | 0.000 | 0.000 | 0.000 |
| 19 | N3最大 | 1 | 1 | -0.000 | -0.000 | 10.439 | -0.000 | -0.000 | -0.000 |
| 19 | M1最大 | 2 | 1 | 0.000 | 0.000 | -10.735 | 0.000 | 0.000 | 0.000 |
| 19 | M2最大 | 2 | 1 | 0.000 | 0.000 | -10.735 | 0.000 | 0.000 | 0.000 |
| 19 | M3最大 | 2 | 1 | 0.000 | 0.000 | -10.735 | 0.000 | 0.000 | 0.000 |
| 19 | 合力最大 | 2 | 1 | 0.000 | 0.000 | -10.735 | 0.000 | 0.000 | 0.000 |
| 19 | N1最小 | 1 | 1 | -0.000 | -0.000 | 10.439 | -0.000 | -0.000 | -0.000 |
| 19 | N2最小 | 1 | 1 | -0.000 | -0.000 | 10.439 | -0.000 | -0.000 | -0.000 |
| 19 | N3最小 | 2 | 1 | 0.000 | 0.000 | -10.735 | 0.000 | 0.000 | 0.000 |
| 19 | M1最小 | 1 | 1 | -0.000 | -0.000 | 10.439 | -0.000 | -0.000 | -0.000 |
| 19 | M2最小 | 1 | 1 | -0.000 | -0.000 | 10.439 | -0.000 | -0.000 | -0.000 |
| 19 | M3最小 | 1 | 1 | -0.000 | -0.000 | 10.439 | -0.000 | -0.000 | -0.000 |
| 17 | N1最大 | 2 | 1 | 0.000 | 0.000 | -17.763 | 0.000 | 0.000 | 0.000 |
| 17 | N2最大 | 2 | 1 | 0.000 | 0.000 | -17.763 | 0.000 | 0.000 | 0.000 |
| 17 | N3最大 | 1 | 1 | -0.000 | -0.000 | 17.289 | -0.000 | -0.000 | -0.000 |
| 17 | M1最大 | 2 | 1 | 0.000 | 0.000 | -17.763 | 0.000 | 0.000 | 0.000 |
| 17 | M2最大 | 2 | 1 | 0.000 | 0.000 | -17.763 | 0.000 | 0.000 | 0.000 |
| 17 | M3最大 | 2 | 1 | 0.000 | 0.000 | -17.763 | 0.000 | 0.000 | 0.000 |
| 17 | 合力最大 | 2 | 1 | 0.000 | 0.000 | -17.763 | 0.000 | 0.000 | 0.000 |
| 17 | N1最小 | 1 | 1 | -0.000 | -0.000 | 17.289 | -0.000 | -0.000 | -0.000 |
| 17 | N2最小 | 1 | 1 | -0.000 | -0.000 | 17.289 | -0.000 | -0.000 | -0.000 |
| 17 | N3最小 | 2 | 1 | 0.000 | 0.000 | -17.763 | 0.000 | 0.000 | 0.000 |
| 17 | M1最小 | 1 | 1 | -0.000 | -0.000 | 17.289 | -0.000 | -0.000 | -0.000 |
| 17 | M2最小 | 1 | 1 | -0.000 | -0.000 | 17.289 | -0.000 | -0.000 | -0.000 |
| 17 | M3最小 | 1 | 1 | -0.000 | -0.000 | 17.289 | -0.000 | -0.000 | -0.000 |
| 15 | N1最大 | 2 | 1 | 0.000 | -0.000 | -17.776 | 0.000 | 0.000 | 0.000 |
| 15 | N2最大 | 1 | 1 | -0.000 | 0.000 | 17.302 | -0.000 | -0.000 | -0.000 |
| 15 | N3最大 | 1 | 1 | -0.000 | 0.000 | 17.302 | -0.000 | -0.000 | -0.000 |
| 15 | M1最大 | 2 | 1 | 0.000 | -0.000 | -17.776 | 0.000 | 0.000 | 0.000 |
| 15 | M2最大 | 2 | 1 | 0.000 | -0.000 | -17.776 | 0.000 | 0.000 | 0.000 |
| 15 | M3最大 | 2 | 1 | 0.000 | -0.000 | -17.776 | 0.000 | 0.000 | 0.000 |
| 15 | 合力最大 | 2 | 1 | 0.000 | -0.000 | -17.776 | 0.000 | 0.000 | 0.000 |
| 15 | N1最小 | 1 | 1 | -0.000 | 0.000 | 17.302 | -0.000 | -0.000 | -0.000 |
| 15 | N2最小 | 2 | 1 | 0.000 | -0.000 | -17.776 | 0.000 | 0.000 | 0.000 |
| 15 | N3最小 | 2 | 1 | 0.000 | -0.000 | -17.776 | 0.000 | 0.000 | 0.000 |
| 15 | M1最小 | 1 | 1 | -0.000 | 0.000 | 17.302 | -0.000 | -0.000 | -0.000 |
| 15 | M2最小 | 1 | 1 | -0.000 | 0.000 | 17.302 | -0.000 | -0.000 | -0.000 |
| 15 | M3最小 | 1 | 1 | -0.000 | 0.000 | 17.302 | -0.000 | -0.000 | -0.000 |
| 13 | N1最大 | 1 | 1 | 0.000 | 0.000 | 10.397 | -0.000 | 0.000 | 0.000 |
| 13 | N2最大 | 1 | 1 | 0.000 | 0.000 | 10.397 | -0.000 | 0.000 | 0.000 |
| 13 | N3最大 | 1 | 1 | 0.000 | 0.000 | 10.397 | -0.000 | 0.000 | 0.000 |
| 13 | M1最大 | 2 | 1 | -0.000 | -0.000 | -10.693 | 0.000 | -0.000 | -0.000 |
| 13 | M2最大 | 1 | 1 | 0.000 | 0.000 | 10.397 | -0.000 | 0.000 | 0.000 |
| 13 | M3最大 | 1 | 1 | 0.000 | 0.000 | 10.397 | -0.000 | 0.000 | 0.000 |
| 13 | 合力最大 | 2 | 1 | -0.000 | -0.000 | -10.693 | 0.000 | -0.000 | -0.000 |
| 13 | N1最小 | 2 | 1 | -0.000 | -0.000 | -10.693 | 0.000 | -0.000 | -0.000 |
| 13 | N2最小 | 2 | 1 | -0.000 | -0.000 | -10.693 | 0.000 | -0.000 | -0.000 |
| 13 | N3最小 | 2 | 1 | -0.000 | -0.000 | -10.693 | 0.000 | -0.000 | -0.000 |
| 13 | M1最小 | 1 | 1 | 0.000 | 0.000 | 10.397 | -0.000 | 0.000 | 0.000 |
| 13 | M2最小 | 2 | 1 | -0.000 | -0.000 | -10.693 | 0.000 | -0.000 | -0.000 |
| 13 | M3最小 | 2 | 1 | -0.000 | -0.000 | -10.693 | 0.000 | -0.000 | -0.000 |
| 9 | N1最大 | 1 | 1 | 0.000 | -0.000 | 4.369 | -0.000 | 0.000 | 0.000 |
| 9 | N2最大 | 2 | 1 | -0.000 | 0.000 | -4.427 | 0.000 | -0.000 | -0.000 |
| 9 | N3最大 | 1 | 1 | 0.000 | -0.000 | 4.369 | -0.000 | 0.000 | 0.000 |
| 9 | M1最大 | 2 | 1 | -0.000 | 0.000 | -4.427 | 0.000 | -0.000 | -0.000 |
| 9 | M2最大 | 1 | 1 | 0.000 | -0.000 | 4.369 | -0.000 | 0.000 | 0.000 |
| 9 | M3最大 | 1 | 1 | 0.000 | -0.000 | 4.369 | -0.000 | 0.000 | 0.000 |
| 9 | 合力最大 | 2 | 1 | -0.000 | 0.000 | -4.427 | 0.000 | -0.000 | -0.000 |
| 9 | N1最小 | 2 | 1 | -0.000 | 0.000 | -4.427 | 0.000 | -0.000 | -0.000 |
| 9 | N2最小 | 1 | 1 | 0.000 | -0.000 | 4.369 | -0.000 | 0.000 | 0.000 |
| 9 | N3最小 | 2 | 1 | -0.000 | 0.000 | -4.427 | 0.000 | -0.000 | -0.000 |
| 9 | M1最小 | 1 | 1 | 0.000 | -0.000 | 4.369 | -0.000 | 0.000 | 0.000 |
| 9 | M2最小 | 2 | 1 | -0.000 | 0.000 | -4.427 | 0.000 | -0.000 | -0.000 |
| 9 | M3最小 | 2 | 1 | -0.000 | 0.000 | -4.427 | 0.000 | -0.000 | -0.000 |
| 7 | N1最大 | 2 | 1 | 0.000 | 0.000 | -7.364 | 0.000 | 0.000 | -0.000 |
| 7 | N2最大 | 2 | 1 | 0.000 | 0.000 | -7.364 | 0.000 | 0.000 | -0.000 |
| 7 | N3最大 | 1 | 1 | -0.000 | -0.000 | 7.283 | -0.000 | -0.000 | 0.000 |
| 7 | M1最大 | 2 | 1 | 0.000 | 0.000 | -7.364 | 0.000 | 0.000 | -0.000 |
| 7 | M2最大 | 2 | 1 | 0.000 | 0.000 | -7.364 | 0.000 | 0.000 | -0.000 |
| 7 | M3最大 | 1 | 1 | -0.000 | -0.000 | 7.283 | -0.000 | -0.000 | 0.000 |
| 7 | 合力最大 | 2 | 1 | 0.000 | 0.000 | -7.364 | 0.000 | 0.000 | -0.000 |
| 7 | N1最小 | 1 | 1 | -0.000 | -0.000 | 7.283 | -0.000 | -0.000 | 0.000 |
| 7 | N2最小 | 1 | 1 | -0.000 | -0.000 | 7.283 | -0.000 | -0.000 | 0.000 |
| 7 | N3最小 | 2 | 1 | 0.000 | 0.000 | -7.364 | 0.000 | 0.000 | -0.000 |
| 7 | M1最小 | 1 | 1 | -0.000 | -0.000 | 7.283 | -0.000 | -0.000 | 0.000 |
| 7 | M2最小 | 1 | 1 | -0.000 | -0.000 | 7.283 | -0.000 | -0.000 | 0.000 |
| 7 | M3最小 | 2 | 1 | 0.000 | 0.000 | -7.364 | 0.000 | 0.000 | -0.000 |
| 5 | N1最大 | 2 | 1 | 0.000 | -0.000 | -7.370 | 0.000 | 0.000 | -0.000 |
| 5 | N2最大 | 1 | 1 | -0.000 | 0.000 | 7.289 | -0.000 | -0.000 | 0.000 |
| 5 | N3最大 | 1 | 1 | -0.000 | 0.000 | 7.289 | -0.000 | -0.000 | 0.000 |
| 5 | M1最大 | 2 | 1 | 0.000 | -0.000 | -7.370 | 0.000 | 0.000 | -0.000 |
| 5 | M2最大 | 2 | 1 | 0.000 | -0.000 | -7.370 | 0.000 | 0.000 | -0.000 |
| 5 | M3最大 | 1 | 1 | -0.000 | 0.000 | 7.289 | -0.000 | -0.000 | 0.000 |
| 5 | 合力最大 | 2 | 1 | 0.000 | -0.000 | -7.370 | 0.000 | 0.000 | -0.000 |
| 5 | N1最小 | 1 | 1 | -0.000 | 0.000 | 7.289 | -0.000 | -0.000 | 0.000 |
| 5 | N2最小 | 2 | 1 | 0.000 | -0.000 | -7.370 | 0.000 | 0.000 | -0.000 |
| 5 | N3最小 | 2 | 1 | 0.000 | -0.000 | -7.370 | 0.000 | 0.000 | -0.000 |
| 5 | M1最小 | 1 | 1 | -0.000 | 0.000 | 7.289 | -0.000 | -0.000 | 0.000 |
| 5 | M2最小 | 1 | 1 | -0.000 | 0.000 | 7.289 | -0.000 | -0.000 | 0.000 |
| 5 | M3最小 | 2 | 1 | 0.000 | -0.000 | -7.370 | 0.000 | 0.000 | -0.000 |
| 3 | N1最大 | 2 | 1 | 0.000 | -0.000 | -4.408 | 0.000 | 0.000 | 0.000 |
| 3 | N2最大 | 1 | 1 | -0.000 | 0.000 | 4.350 | -0.000 | -0.000 | -0.000 |
| 3 | N3最大 | 1 | 1 | -0.000 | 0.000 | 4.350 | -0.000 | -0.000 | -0.000 |
| 3 | M1最大 | 2 | 1 | 0.000 | -0.000 | -4.408 | 0.000 | 0.000 | 0.000 |
| 3 | M2最大 | 2 | 1 | 0.000 | -0.000 | -4.408 | 0.000 | 0.000 | 0.000 |
| 3 | M3最大 | 2 | 1 | 0.000 | -0.000 | -4.408 | 0.000 | 0.000 | 0.000 |
| 3 | 合力最大 | 2 | 1 | 0.000 | -0.000 | -4.408 | 0.000 | 0.000 | 0.000 |
| 3 | N1最小 | 1 | 1 | -0.000 | 0.000 | 4.350 | -0.000 | -0.000 | -0.000 |
| 3 | N2最小 | 2 | 1 | 0.000 | -0.000 | -4.408 | 0.000 | 0.000 | 0.000 |
| 3 | N3最小 | 2 | 1 | 0.000 | -0.000 | -4.408 | 0.000 | 0.000 | 0.000 |
| 3 | M1最小 | 1 | 1 | -0.000 | 0.000 | 4.350 | -0.000 | -0.000 | -0.000 |
| 3 | M2最小 | 1 | 1 | -0.000 | 0.000 | 4.350 | -0.000 | -0.000 | -0.000 |
| 3 | M3最小 | 1 | 1 | -0.000 | 0.000 | 4.350 | -0.000 | -0.000 | -0.000 |

* 1. 线性内力
     1. **线性组合包络**





线性组合轴力N最大包络云图:kN（整体）

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 轴力N最大的前10个单元的内力（单位：m, kN, kN.m） | | | | | | | | | | |
| 序号 | 单元号 | 组合号 | 组合序号 | 位置 | 轴力N | 剪力Q2 | 剪力Q3 | 扭矩M | 弯矩M2 | 弯矩M3 |
| 1 | 50 | 4 | 1 | 0.405 | 27.308 | -0.000 | 0.000 | -0.000 | 0.000 | 0.000 |
| 2 | 6 | 4 | 1 | 0.405 | 27.308 | -0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 3 | 51 | 4 | 1 | 0.405 | 27.287 | -0.000 | 0.000 | -0.000 | 0.000 | 0.000 |
| 4 | 7 | 4 | 1 | 0.405 | 27.287 | -0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 5 | 42 | 4 | 1 | 0.405 | 24.468 | -0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 6 | 14 | 4 | 1 | 0.405 | 24.468 | -0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 7 | 15 | 4 | 1 | 0.405 | 24.449 | -0.000 | 0.000 | -0.000 | 0.000 | 0.000 |
| 8 | 43 | 4 | 1 | 0.405 | 24.449 | -0.000 | 0.000 | -0.000 | 0.000 | 0.000 |
| 9 | 34 | 4 | 1 | 0.405 | 24.310 | -0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 10 | 22 | 4 | 1 | 0.405 | 24.310 | -0.000 | 0.000 | 0.000 | 0.000 | 0.000 |





线性组合轴力N最小包络云图:kN（整体）

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 轴力N最小的前10个单元的内力（单位：m, kN, kN.m） | | | | | | | | | | |
| 序号 | 单元号 | 组合号 | 组合序号 | 位置 | 轴力N | 剪力Q2 | 剪力Q3 | 扭矩M | 弯矩M2 | 弯矩M3 |
| 1 | 50 | 1 | 1 | 0.000 | -25.699 | 0.000 | -0.000 | 0.000 | 0.000 | 0.000 |
| 2 | 6 | 1 | 1 | 0.000 | -25.699 | 0.000 | -0.000 | -0.000 | 0.000 | 0.000 |
| 3 | 51 | 1 | 1 | 0.000 | -25.680 | 0.000 | -0.000 | 0.000 | 0.000 | 0.000 |
| 4 | 7 | 1 | 1 | 0.000 | -25.680 | 0.000 | -0.000 | -0.000 | 0.000 | 0.000 |
| 5 | 14 | 1 | 1 | 0.000 | -23.049 | 0.000 | -0.000 | -0.000 | 0.000 | 0.000 |
| 6 | 42 | 1 | 1 | 0.000 | -23.049 | 0.000 | -0.000 | -0.000 | 0.000 | 0.000 |
| 7 | 15 | 1 | 1 | 0.000 | -23.031 | 0.000 | -0.000 | 0.000 | 0.000 | 0.000 |
| 8 | 43 | 1 | 1 | 0.000 | -23.031 | 0.000 | -0.000 | 0.000 | 0.000 | 0.000 |
| 9 | 34 | 1 | 1 | 0.000 | -22.902 | 0.000 | -0.000 | -0.000 | 0.000 | 0.000 |
| 10 | 22 | 1 | 1 | 0.000 | -22.902 | 0.000 | -0.000 | -0.000 | 0.000 | 0.000 |





线性组合弯矩M2最大包络云图:kN.m（整体）

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 弯矩M2最大的前10个单元的内力（单位：m, kN, kN.m） | | | | | | | | | | |
| 序号 | 单元号 | 组合号 | 组合序号 | 位置 | 轴力N | 剪力Q2 | 剪力Q3 | 扭矩M | 弯矩M2 | 弯矩M3 |
| 1 | 239 | 1 | 1 | 0.000 | 0.000 | 0.000 | -7.313 | 0.000 | 3.815 | 0.000 |
| 2 | 227 | 1 | 1 | 3.000 | 0.000 | -0.000 | 7.313 | -0.000 | 3.815 | 0.000 |
| 3 | 238 | 1 | 1 | 3.000 | -0.000 | -0.000 | 6.397 | 0.000 | 3.815 | 0.000 |
| 4 | 228 | 1 | 1 | 0.000 | -0.000 | 0.000 | -6.397 | -0.000 | 3.815 | 0.000 |
| 5 | 284 | 1 | 1 | 0.000 | -0.000 | 0.000 | -7.313 | -0.000 | 3.814 | 0.000 |
| 6 | 272 | 1 | 1 | 3.000 | -0.000 | -0.000 | 7.313 | 0.000 | 3.814 | 0.000 |
| 7 | 283 | 1 | 1 | 3.000 | 0.000 | -0.000 | 6.397 | -0.000 | 3.814 | 0.000 |
| 8 | 273 | 1 | 1 | 0.000 | 0.000 | 0.000 | -6.397 | 0.000 | 3.814 | 0.000 |
| 9 | 223 | 1 | 1 | 3.000 | 0.000 | -0.000 | 6.373 | 0.000 | 3.762 | 0.000 |
| 10 | 213 | 1 | 1 | 0.000 | 0.000 | 0.000 | -6.373 | -0.000 | 3.762 | 0.000 |





线性组合弯矩M2最小包络云图:kN.m（整体）

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 弯矩M2最小的前10个单元的内力（单位：m, kN, kN.m） | | | | | | | | | | |
| 序号 | 单元号 | 组合号 | 组合序号 | 位置 | 轴力N | 剪力Q2 | 剪力Q3 | 扭矩M | 弯矩M2 | 弯矩M3 |
| 1 | 239 | 4 | 1 | 0.000 | -0.000 | -0.000 | 7.836 | -0.000 | -4.088 | -0.000 |
| 2 | 227 | 4 | 1 | 3.000 | -0.000 | 0.000 | -7.836 | 0.000 | -4.088 | -0.000 |
| 3 | 238 | 4 | 1 | 3.000 | 0.000 | 0.000 | -6.855 | -0.000 | -4.088 | -0.000 |
| 4 | 228 | 4 | 1 | 0.000 | 0.000 | -0.000 | 6.855 | 0.000 | -4.088 | -0.000 |
| 5 | 284 | 4 | 1 | 0.000 | 0.000 | -0.000 | 7.836 | 0.000 | -4.087 | -0.000 |
| 6 | 272 | 4 | 1 | 3.000 | 0.000 | 0.000 | -7.836 | -0.000 | -4.087 | -0.000 |
| 7 | 283 | 4 | 1 | 3.000 | -0.000 | 0.000 | -6.855 | 0.000 | -4.087 | -0.000 |
| 8 | 273 | 4 | 1 | 0.000 | -0.000 | -0.000 | 6.855 | -0.000 | -4.087 | -0.000 |
| 9 | 223 | 4 | 1 | 3.000 | -0.000 | 0.000 | -6.829 | -0.000 | -4.031 | -0.000 |
| 10 | 213 | 4 | 1 | 0.000 | -0.000 | -0.000 | 6.829 | 0.000 | -4.031 | -0.000 |





线性组合弯矩M3最大包络云图:kN.m（整体）

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 弯矩M3最大的前10个单元的内力（单位：m, kN, kN.m） | | | | | | | | | | |
| 序号 | 单元号 | 组合号 | 组合序号 | 位置 | 轴力N | 剪力Q2 | 剪力Q3 | 扭矩M | 弯矩M2 | 弯矩M3 |
| 1 | 269 | 1 | 1 | 0.000 | 0.000 | 0.000 | -7.262 | -0.000 | 3.662 | 0.000 |
| 2 | 242 | 1 | 1 | 3.000 | -0.000 | -0.000 | 7.261 | -0.000 | 3.659 | 0.000 |
| 3 | 272 | 1 | 1 | 3.000 | -0.000 | -0.000 | 7.313 | 0.000 | 3.814 | 0.000 |
| 4 | 287 | 1 | 1 | 3.000 | -0.000 | -0.000 | 7.294 | -0.000 | 3.760 | 0.000 |
| 5 | 239 | 1 | 1 | 0.000 | 0.000 | 0.000 | -7.313 | 0.000 | 3.815 | 0.000 |
| 6 | 224 | 1 | 1 | 0.000 | 0.000 | 0.000 | -7.295 | -0.000 | 3.762 | 0.000 |
| 7 | 284 | 1 | 1 | 0.000 | -0.000 | 0.000 | -7.313 | -0.000 | 3.814 | 0.000 |
| 8 | 227 | 1 | 1 | 3.000 | 0.000 | -0.000 | 7.313 | -0.000 | 3.815 | 0.000 |
| 9 | 299 | 1 | 1 | 0.000 | -0.000 | 0.000 | -7.294 | 0.000 | 3.760 | 0.000 |
| 10 | 257 | 1 | 1 | 3.000 | 0.000 | -0.000 | 7.262 | 0.000 | 3.662 | 0.000 |





线性组合弯矩M3最小包络云图:kN.m（整体）

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 弯矩M3最小的前10个单元的内力（单位：m, kN, kN.m） | | | | | | | | | | |
| 序号 | 单元号 | 组合号 | 组合序号 | 位置 | 轴力N | 剪力Q2 | 剪力Q3 | 扭矩M | 弯矩M2 | 弯矩M3 |
| 1 | 269 | 4 | 1 | 0.000 | -0.000 | -0.000 | 7.781 | 0.000 | -3.924 | -0.000 |
| 2 | 242 | 4 | 1 | 3.000 | 0.000 | 0.000 | -7.781 | 0.000 | -3.921 | -0.000 |
| 3 | 272 | 4 | 1 | 3.000 | 0.000 | 0.000 | -7.836 | -0.000 | -4.087 | -0.000 |
| 4 | 287 | 4 | 1 | 3.000 | 0.000 | 0.000 | -7.816 | 0.000 | -4.029 | -0.000 |
| 5 | 239 | 4 | 1 | 0.000 | -0.000 | -0.000 | 7.836 | -0.000 | -4.088 | -0.000 |
| 6 | 224 | 4 | 1 | 0.000 | -0.000 | -0.000 | 7.817 | 0.000 | -4.031 | -0.000 |
| 7 | 284 | 4 | 1 | 0.000 | 0.000 | -0.000 | 7.836 | 0.000 | -4.087 | -0.000 |
| 8 | 227 | 4 | 1 | 3.000 | -0.000 | 0.000 | -7.836 | 0.000 | -4.088 | -0.000 |
| 9 | 299 | 4 | 1 | 0.000 | 0.000 | -0.000 | 7.816 | -0.000 | -4.029 | -0.000 |
| 10 | 257 | 4 | 1 | 3.000 | -0.000 | 0.000 | -7.781 | -0.000 | -3.924 | -0.000 |

* 1. 线性位移
     1. **线性最大位移**





最大正位移\_\_组合2 (恒0+风2)\_Uz：mm





最大负位移\_\_组合1 (恒0+风1)\_Uz：mm

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 线性组合最大最小位移表 | | | | | | |
| 最不利项 | 节点 | 组合名 | Ux | Uy | Uz | Uxyz |
| X方向位移最大 | 122 | 组合1 (恒0+风1) | 0.000 | -0.000 | -1.463 | 1.463 |
| Y方向位移最大 | 20 | 组合2 (恒0+风2) | -0.000 | 0.000 | 0.061 | 0.061 |
| Z方向位移最大 | 234 | 组合2 (恒0+风2) | -0.000 | 0.000 | 1.656 | 1.656 |
| 空间位移最大 | 234 | 组合2 (恒0+风2) | -0.000 | 0.000 | 1.656 | 1.656 |
| X方向位移最小 | 122 | 组合2 (恒0+风2) | -0.000 | 0.000 | 1.533 | 1.533 |
| Y方向位移最小 | 20 | 组合1 (恒0+风1) | 0.000 | -0.000 | -0.059 | 0.059 |
| Z方向位移最小 | 234 | 组合1 (恒0+风1) | 0.000 | -0.000 | -1.609 | 1.609 |



线性组合最大最小位移图（整体）

1. 验算结果
   1. 杆件应力比限值分布图

|  |  |  |
| --- | --- | --- |
| 应力比限值表 | | |
| 序号 | 应力比下限 | 应力比上限 |
| 1 | 0 | 1 |





应力比限值分布图（整体）

* 1. 杆件应力比分布图

所选模型中，构件应力比最大值为0.906，下图为所选模型应力比分布图：

* 1. 杆件验算结果云图
     1. **强度应力比**





按“强度应力比”显示构件颜色（整体）

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| “强度应力比”最大的前 10 个单元的验算结果（所在组合号／情况号） | | | | | | | | | |
| 序号 | 单元号 | 强度 | 绕2轴稳定 | 绕3轴稳定 | 沿2轴抗剪 | 沿3轴抗剪 | 沿2轴长细比 | 沿3轴长细比 | 验算结果 |
| 1 | 193 | 0.723(4/1) | 0.790 | 0.790 | 0.000 | 0.416 | 9 | 20 | 满足 |
| 2 | 72 | 0.723(4/1) | 0.790 | 0.790 | 0.000 | 0.416 | 9 | 20 | 满足 |
| 3 | 192 | 0.723(4/1) | 0.790 | 0.790 | 0.000 | 0.368 | 9 | 20 | 满足 |
| 4 | 71 | 0.723(4/1) | 0.790 | 0.790 | 0.000 | 0.368 | 9 | 20 | 满足 |
| 5 | 195 | 0.722(4/1) | 0.789 | 0.789 | 0.000 | 0.417 | 9 | 20 | 满足 |
| 6 | 74 | 0.722(4/1) | 0.789 | 0.789 | 0.000 | 0.417 | 9 | 20 | 满足 |
| 7 | 196 | 0.722(4/1) | 0.789 | 0.789 | 0.000 | 0.366 | 9 | 20 | 满足 |
| 8 | 75 | 0.722(4/1) | 0.789 | 0.789 | 0.000 | 0.366 | 9 | 20 | 满足 |
| 9 | 94 | 0.648(4/1) | 0.708 | 0.708 | 0.000 | 0.374 | 9 | 20 | 满足 |
| 10 | 171 | 0.648(4/1) | 0.708 | 0.708 | 0.000 | 0.374 | 9 | 20 | 满足 |

* + 1. **绕2轴稳定应力比**





按“绕2轴稳定应力比”显示构件颜色（整体）

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| “绕2轴稳定应力比”最大的前 10 个单元的验算结果（所在组合号／情况号） | | | | | | | | | |
| 序号 | 单元号 | 强度 | 绕2轴稳定 | 绕3轴稳定 | 沿2轴抗剪 | 沿3轴抗剪 | 沿2轴长细比 | 沿3轴长细比 | 验算结果 |
| 1 | 193 | 0.723 | 0.790(4/1) | 0.790 | 0.000 | 0.416 | 9 | 20 | 满足 |
| 2 | 72 | 0.723 | 0.790(4/1) | 0.790 | 0.000 | 0.416 | 9 | 20 | 满足 |
| 3 | 192 | 0.723 | 0.790(4/1) | 0.790 | 0.000 | 0.368 | 9 | 20 | 满足 |
| 4 | 71 | 0.723 | 0.790(4/1) | 0.790 | 0.000 | 0.368 | 9 | 20 | 满足 |
| 5 | 195 | 0.722 | 0.789(4/1) | 0.789 | 0.000 | 0.417 | 9 | 20 | 满足 |
| 6 | 74 | 0.722 | 0.789(4/1) | 0.789 | 0.000 | 0.417 | 9 | 20 | 满足 |
| 7 | 196 | 0.722 | 0.789(4/1) | 0.789 | 0.000 | 0.366 | 9 | 20 | 满足 |
| 8 | 75 | 0.722 | 0.789(4/1) | 0.789 | 0.000 | 0.366 | 9 | 20 | 满足 |
| 9 | 94 | 0.648 | 0.708(4/1) | 0.708 | 0.000 | 0.374 | 9 | 20 | 满足 |
| 10 | 171 | 0.648 | 0.708(4/1) | 0.708 | 0.000 | 0.374 | 9 | 20 | 满足 |

* + 1. **绕3轴稳定应力比**





按“绕3轴稳定应力比”显示构件颜色（整体）

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| “绕3轴稳定应力比”最大的前 10 个单元的验算结果（所在组合号／情况号） | | | | | | | | | |
| 序号 | 单元号 | 强度 | 绕2轴稳定 | 绕3轴稳定 | 沿2轴抗剪 | 沿3轴抗剪 | 沿2轴长细比 | 沿3轴长细比 | 验算结果 |
| 1 | 239 | 0.358 | 0.389 | 0.906(4/1) | 0.000 | 0.134 | 55 | 137 | 满足 |
| 2 | 227 | 0.358 | 0.389 | 0.906(4/1) | 0.000 | 0.134 | 55 | 137 | 满足 |
| 3 | 238 | 0.358 | 0.389 | 0.906(4/1) | 0.000 | 0.117 | 55 | 137 | 满足 |
| 4 | 228 | 0.358 | 0.389 | 0.906(4/1) | 0.000 | 0.117 | 55 | 137 | 满足 |
| 5 | 284 | 0.358 | 0.389 | 0.906(4/1) | 0.000 | 0.134 | 55 | 137 | 满足 |
| 6 | 272 | 0.358 | 0.389 | 0.906(4/1) | 0.000 | 0.134 | 55 | 137 | 满足 |
| 7 | 283 | 0.358 | 0.389 | 0.906(4/1) | 0.000 | 0.117 | 55 | 137 | 满足 |
| 8 | 273 | 0.358 | 0.389 | 0.906(4/1) | 0.000 | 0.117 | 55 | 137 | 满足 |
| 9 | 223 | 0.353 | 0.383 | 0.894(4/1) | 0.000 | 0.117 | 55 | 137 | 满足 |
| 10 | 213 | 0.353 | 0.383 | 0.894(4/1) | 0.000 | 0.117 | 55 | 137 | 满足 |