

Обект: Реконструкция на ВЛ 110kV Близнак  
Част: Електрическа и геология  
Документ: Приложение №14  
Заглавие: Монтажна таблица на м.з. въжета

| θм, °С |            |             | σтах,<br>МПа | ΔТ°   | 0         |          |             | 5         |          |             | 10        |          |             | 15        |          |             | 20        |          |             | 25        |          |             | 30        |          |             | 35        |          |             | 40        |          |             |
|--------|------------|-------------|--------------|-------|-----------|----------|-------------|-----------|----------|-------------|-----------|----------|-------------|-----------|----------|-------------|-----------|----------|-------------|-----------|----------|-------------|-----------|----------|-------------|-----------|----------|-------------|-----------|----------|-------------|
| м-см   | l пр,<br>м | lм-см,<br>м |              |       | σ,<br>МПа | Т,<br>kg | fm-см,<br>m | σ,<br>МПа | Т,<br>kg | fm-см,<br>m | σ,<br>МПа | Т,<br>kg | fm-см,<br>m | σ,<br>МПа | Т,<br>kg | fm-см,<br>m | σ,<br>МПа | Т,<br>kg | fm-см,<br>m | σ,<br>МПа | Т,<br>kg | fm-см,<br>m | σ,<br>МПа | Т,<br>kg | fm-см,<br>m | σ,<br>МПа | Т,<br>kg | fm-см,<br>m | σ,<br>МПа | Т,<br>kg | fm-см,<br>m |
| 1-2    | 271        | 230         | 297.76       | 17.44 | 121.29    | 819.69   | 3.84        | 118.54    | 801.17   | 3.93        | 115.94    | 783.55   | 4.02        | 113.46    | 766.79   | 4.11        | 111.10    | 750.84   | 4.20        | 108.85    | 735.64   | 4.28        | 106.70    | 721.15   | 4.37        | 104.66    | 707.33   | 4.45        | 102.71    | 694.14   | 4.54        |
| 2-3    | 271        | 310         | 297.76       | 17.44 | 121.29    | 819.69   | 6.96        | 118.54    | 801.17   | 7.12        | 115.94    | 783.55   | 7.28        | 113.46    | 766.79   | 7.44        | 111.10    | 750.84   | 7.60        | 108.85    | 735.64   | 7.76        | 106.70    | 721.15   | 7.91        | 104.66    | 707.33   | 8.07        | 102.71    | 694.14   | 8.22        |
| 3-4    | 271        | 271         | 297.76       | 17.44 | 121.29    | 819.69   | 5.32        | 118.54    | 801.17   | 5.44        | 115.94    | 783.55   | 5.57        | 113.46    | 766.79   | 5.69        | 111.10    | 750.84   | 5.81        | 108.85    | 735.64   | 5.93        | 106.70    | 721.15   | 6.05        | 104.66    | 707.33   | 6.16        | 102.71    | 694.14   | 6.28        |
| 4-5    | 271        | 271         | 297.76       | 17.44 | 121.29    | 819.69   | 5.32        | 118.54    | 801.17   | 5.44        | 115.94    | 783.55   | 5.57        | 113.46    | 766.79   | 5.69        | 111.10    | 750.84   | 5.81        | 108.85    | 735.64   | 5.93        | 106.70    | 721.15   | 6.05        | 104.66    | 707.33   | 6.16        | 102.71    | 694.14   | 6.28        |
| 5-6    | 271        | 223         | 297.76       | 17.44 | 121.29    | 819.69   | 3.60        | 118.54    | 801.17   | 3.69        | 115.94    | 783.55   | 3.77        | 113.46    | 766.79   | 3.85        | 111.10    | 750.84   | 3.93        | 108.85    | 735.64   | 4.01        | 106.70    | 721.15   | 4.09        | 104.66    | 707.33   | 4.17        | 102.71    | 694.14   | 4.25        |
| 6-7    | 271        | 274         | 297.76       | 17.44 | 121.29    | 819.69   | 5.44        | 118.54    | 801.17   | 5.56        | 115.94    | 783.55   | 5.69        | 113.46    | 766.79   | 5.81        | 111.10    | 750.84   | 5.94        | 108.85    | 735.64   | 6.06        | 106.70    | 721.15   | 6.18        | 104.66    | 707.33   | 6.30        | 102.71    | 694.14   | 6.42        |
| 7-8    | 271        | 312         | 297.76       | 17.44 | 121.29    | 819.69   | 7.05        | 118.54    | 801.17   | 7.21        | 115.94    | 783.55   | 7.38        | 113.46    | 766.79   | 7.54        | 111.10    | 750.84   | 7.70        | 108.85    | 735.64   | 7.86        | 106.70    | 721.15   | 8.01        | 104.66    | 707.33   | 8.17        | 102.71    | 694.14   | 8.33        |
| 8-9    | 271        | 270         | 297.76       | 17.44 | 121.29    | 819.69   | 5.28        | 118.54    | 801.17   | 5.40        | 115.94    | 783.55   | 5.52        | 113.46    | 766.79   | 5.64        | 111.10    | 750.84   | 5.76        | 108.85    | 735.64   | 5.88        | 106.70    | 721.15   | 6.00        | 104.66    | 707.33   | 6.12        | 102.71    | 694.14   | 6.24        |
| 9-10   | 271        | 238         | 297.76       | 17.44 | 121.29    | 819.69   | 4.10        | 118.54    | 801.17   | 4.20        | 115.94    | 783.55   | 4.29        | 113.46    | 766.79   | 4.39        | 111.10    | 750.84   | 4.48        | 108.85    | 735.64   | 4.57        | 106.70    | 721.15   | 4.66        | 104.66    | 707.33   | 4.75        | 102.71    | 694.14   | 4.85        |
| 10-11  | 271        | 159         | 297.76       | 17.44 | 121.29    | 819.69   | 1.83        | 118.54    | 801.17   | 1.87        | 115.94    | 783.55   | 1.92        | 113.46    | 766.79   | 1.96        | 111.10    | 750.84   | 2.00        | 108.85    | 735.64   | 2.04        | 106.70    | 721.15   | 2.08        | 104.66    | 707.33   | 2.12        | 102.71    | 694.14   | 2.16        |
| 11-12  | 271        | 297         | 297.76       | 17.44 | 121.29    | 819.69   | 6.39        | 118.54    | 801.17   | 6.54        | 115.94    | 783.55   | 6.68        | 113.46    | 766.79   | 6.83        | 111.10    | 750.84   | 6.98        | 108.85    | 735.64   | 7.12        | 106.70    | 721.15   | 7.26        | 104.66    | 707.33   | 7.40        | 102.71    | 694.14   | 7.55        |
| 12-13  | 271        | 277         | 297.76       | 17.44 | 121.29    | 819.69   | 5.56        | 118.54    | 801.17   | 5.69        | 115.94    | 783.55   | 5.81        | 113.46    | 766.79   | 5.94        | 111.10    | 750.84   | 6.07        | 108.85    | 735.64   | 6.19        | 106.70    | 721.15   | 6.32        | 104.66    | 707.33   | 6.44        | 102.71    | 694.14   | 6.56        |
| 13-14  | 271        | 281         | 297.76       | 17.44 | 121.29    | 819.69   | 5.72        | 118.54    | 801.17   | 5.85        | 115.94    | 783.55   | 5.98        | 113.46    | 766.79   | 6.11        | 111.10    | 750.84   | 6.24        | 108.85    | 735.64   | 6.37        | 106.70    | 721.15   | 6.50        | 104.66    | 707.33   | 6.63        | 102.71    | 694.14   | 6.75        |
| 14-15  | 296        | 279         | 311.46       | 17.82 | 124.61    | 842.17   | 5.49        | 122.05    | 824.85   | 5.60        | 119.60    | 808.31   | 5.72        | 117.27    | 792.53   | 5.83        | 115.04    | 777.46   | 5.95        | 112.90    | 763.04   | 6.06        | 110.86    | 749.26   | 6.17        | 108.91    | 736.06   | 6.28        | 107.04    | 723.42   | 6.39        |
| 15-16  | 296        | 271         | 311.46       | 17.82 | 124.61    | 842.17   | 5.18        | 122.05    | 824.85   | 5.29        | 119.60    | 808.31   | 5.39        | 117.27    | 792.53   | 5.50        | 115.04    | 777.46   | 5.61        | 112.90    | 763.04   | 5.71        | 110.86    | 749.26   | 5.82        | 108.91    | 736.06   | 5.92        | 107.04    | 723.42   | 6.03        |
| 16-17  | 296        | 423         | 311.46       | 17.82 | 124.61    | 842.17   | 12.61       | 122.05    | 824.85   | 12.88       | 119.60    | 808.31   | 13.14       | 117.27    | 792.53   | 13.41       | 115.04    | 777.46   | 13.66       | 112.90    | 763.04   | 13.92       | 110.86    | 749.26   | 14.18       | 108.91    | 736.06   | 14.43       | 107.04    | 723.42   | 14.69       |
| 17-18  | 296        | 339         | 311.46       | 17.82 | 124.61    | 842.17   | 8.10        | 122.05    | 824.85   | 8.27        | 119.60    | 808.31   | 8.44        | 117.27    | 792.53   | 8.61        | 115.04    | 777.46   | 8.78        | 112.90    | 763.04   | 8.94        | 110.86    | 749.26   | 9.11        | 108.91    | 736.06   | 9.27        | 107.04    | 723.42   | 9.43        |
| 18-19  | 296        | 232         | 311.46       | 17.82 | 124.61    | 842.17   | 3.79        | 122.05    | 824.85   | 3.87        | 119.60    | 808.31   | 3.95        | 117.27    | 792.53   | 4.03        | 115.04    | 777.46   | 4.11        | 112.90    | 763.04   | 4.19        | 110.86    | 749.26   | 4.27        | 108.91    | 736.06   | 4.34        | 107.04    | 723.42   | 4.42        |
| 19-20  | 296        | 254         | 311.46       | 17.82 | 124.61    | 842.17   | 4.55        | 122.05    | 824.85   | 4.64        | 119.60    | 808.31   | 4.74        | 117.27    | 792.53   | 4.83        | 115.04    | 777.46   | 4.93        | 112.90    | 763.04   | 5.02        | 110.86    | 749.26   | 5.11        | 108.91    | 736.06   | 5.20        | 107.04    | 723.42   | 5.30        |
| 20-21  | 296        | 224         | 311.46       | 17.82 | 124.61    | 842.17   | 3.54        | 122.05    | 824.85   | 3.61        | 119.60    | 808.31   | 3.69        | 117.27    | 792.53   | 3.76        | 115.04    | 777.46   | 3.83        | 112.90    | 763.04   | 3.90        | 110.86    | 749.26   | 3.98        | 108.91    | 736.06   | 4.05        | 107.04    | 723.42   | 4.12        |
| 21-22  | 296        | 308         | 311.46       | 17.82 | 124.61    | 842.17   | 6.69        | 122.05    | 824.85   | 6.83        | 119.60    | 808.31   | 6.97        | 117.27    | 792.53   | 7.11        | 115.04    | 777.46   | 7.24        | 112.90    | 763.04   | 7.38        | 110.86    | 749.26   | 7.52        | 108.91    | 736.06   | 7.65        | 107.04    | 723.42   | 7.79        |
| 22-23  | 296        | 219         | 311.46       | 17.82 | 124.61    | 842.17   | 3.38        | 122.05    | 824.85   | 3.45        | 119.60    | 808.31   | 3.52        | 117.27    | 792.53   | 3.59        | 115.04    | 777.46   | 3.66        | 112.90    | 763.04   | 3.73        | 110.86    | 749.26   | 3.80        | 108.91    | 736.06   | 3.87        | 107.04    | 723.42   | 3.94        |
| 23-24  | 296        | 322         | 311.46       | 17.82 | 124.61    | 842.17   | 7.31        | 122.05    | 824.85   | 7.46        | 119.60    | 808.31   | 7.62        | 117.27    | 792.53   | 7.77        | 115.04    | 777.46   | 7.92        | 112.90    | 763.04   | 8.07        | 110.86    | 749.26   | 8.22        | 108.91    | 736.06   | 8.36        | 107.04    | 723.42   | 8.51        |
| 24-25  | 296        | 260         | 311.46       | 17.82 | 124.61    | 842.17   | 4.77        | 122.05    | 824.85   | 4.87        | 119.60    | 808.31   | 4.97        | 117.27    | 792.53   | 5.06        | 115.04    | 777.46   | 5.16        | 112.90    | 763.04   | 5.26        | 110.86    | 749.26   | 5.36        | 108.91    | 736.06   | 5.45        | 107.04    | 723.42   | 5.55        |
| 25-26  | 296        | 290         | 311.46       | 17.82 | 124.61    | 842.17   | 5.93        | 122.05    | 824.85   | 6.05        | 119.60    | 808.31   | 6.18        | 117.27    | 792.53   | 6.30        | 115.04    | 777.46   | 6.42        | 112.90    | 763.04   | 6.54        | 110.86    | 749.26   | 6.66        | 108.91    | 736.06   | 6.78        | 107.04    | 723.42   | 6.90        |
| 26-27  | 296        | 274         | 311.46       | 17.82 | 124.61    | 842.17   | 5.29        | 122.05    | 824.85   | 5.40        | 119.60    | 808.31   | 5.51        | 117.27    | 792.53   | 5.62        | 115.04    | 777.46   | 5.73        | 112.90    | 763.04   | 5.84        | 110.86    | 749.26   | 5.95        | 108.91    | 736.06   | 6.06        | 107.04    | 723.42   | 6.16        |
| 27-28  | 296        | 210         | 311.46       | 17.82 | 124.61    | 842.17   | 3.12        | 122.05    | 824.85   | 3.19        | 119.60    | 808.31   | 3.25        | 117.27    | 792.53   | 3.32        | 115.04    | 777.46   | 3.38        | 112.90    | 763.04   | 3.44        | 110.86    | 749.26   | 3.51        | 108.91    | 736.06   | 3.57        | 107.04    | 723.42   | 3.63        |
| 28-29  | 271        | 233         | 304.62       | 17.91 | 128.25    | 866.78   | 3.71        | 125.16    | 845.88   | 3.80        | 122.22    | 826.02   | 3.89        | 119.43    | 807.16   | 3.98        | 116.78    | 789.24   | 4.07        | 114.25    | 772.18   | 4.16        | 111.85    | 755.95   | 4.25        | 109.57    | 740.50   | 4.34        | 107.39    | 725.77   | 4.43        |
| 29-30  | 271        | 278         | 304.62       | 17.91 | 128.25    | 866.78   | 5.29        | 125.16    | 845.88   | 5.42        | 122.22    | 826.02   | 5.56        | 119.43    | 807.16   | 5.69        | 116.78    | 789.24   | 5.81        | 114.25    | 772.18   | 5.94        | 111.85    | 755.95   | 6.07        | 109.57    | 740.50   | 6.20        | 107.39    | 725.77   | 6.32        |
| 30-31  | 271        | 302         | 304.62       | 17.91 | 128.25    | 866.78   | 6.25        | 125.16    | 845.88   | 6.40        | 122.22    | 826.02   | 6.56        | 119.43    | 807.16   | 6.71        | 116.78    | 789.24   | 6.86        | 114.25    | 772.18   | 7.01        | 111.85    | 755.95   | 7.16        | 109.57    | 740.50   | 7.31        | 107.39    | 725.77   | 7.46        |
| 31-32  | 271        | 395         | 304.62       | 17.91 | 128.25    | 866.78   | 10.68       | 125.16    | 845.88   | 10.95       | 122.22    | 826.02   | 11.21       | 119.43    | 807.16   | 11.47       | 116.78    | 789.24   | 11.73       | 114.25    | 772.18   | 11.99       | 111.85    | 755.95   | 12.25       | 109.57    | 740.50   | 12.50       | 107.39    | 725.77   | 12.76       |
| 32-33  | 271        | 259         | 304.62       | 17.91 | 128.25    | 866.78   | 4.60        | 125.16    | 845.88   | 4.71        | 122.22    | 826.02   | 4.83        | 119.43    | 807.16   | 4.94        | 116.78    | 789.24   | 5.05        | 114.25    | 772.18   | 5.16        | 111.85    | 755.95   | 5.27        | 109.57    | 740.50   | 5.38        | 107.39    | 725.77   | 5.49        |
| 33-34  | 271        | 182         | 304.62       | 17.91 | 128.25    | 866.78   | 2.27        | 125.16    | 845.88   | 2.33        | 122.22    | 826.02   | 2.38        | 119.43    | 807.16   | 2.44        | 116.78    | 789.24   | 2.49        | 114.25    | 772.18   | 2.55        | 111.85    | 755.95   | 2.60        | 109.57    | 740.50   | 2.66        | 107.39    | 725.77   | 2.71        |
| 34-35  | 271        | 256         | 304.62       | 17.91 | 128.25    | 866.78   | 4.50        | 125.16    | 845.88   | 4.61        | 122.22    | 826.02   | 4.72        | 119.43    | 807.16   | 4.83        | 116.78    | 789.24   | 4.94        | 114.25    | 772.18   | 5.05        | 111.85    | 755.95   | 5.16        | 109.57    | 740.50   | 5.27        | 107.39    | 725.77   | 5.37        |
| 35-36  | 271        | 196         | 304.62       | 17.91 | 128.25    | 866.78   | 2.62        | 125.16    | 845.88   | 2.69        | 122.22    | 826.02   | 2.75        | 119.43    | 807.16   | 2.82        | 116.78    | 789.24   | 2.88        | 114.25    | 772.18   | 2.94        | 111.85    | 755.95   | 3.01        | 109.57    | 740.50   | 3.07        | 107.39    | 725.77   |             |

Обект: Реконструкция на ВЛ 110kV Близнак  
Част: Електрическа и геология  
Документ: Приложение №14  
Заглавие: Монтажна таблица на м.з. въжета

| θм, °С |            |             | σ <sub>тах</sub> ,<br>МРa | ΔТ°   | 0         |          |             | 5         |          |             | 10        |          |             | 15        |          |             | 20        |          |             | 25        |          |             | 30        |          |             | 35        |          |             | 40        |          |             |
|--------|------------|-------------|---------------------------|-------|-----------|----------|-------------|-----------|----------|-------------|-----------|----------|-------------|-----------|----------|-------------|-----------|----------|-------------|-----------|----------|-------------|-----------|----------|-------------|-----------|----------|-------------|-----------|----------|-------------|
| м-см   | l пр,<br>м | lм-см,<br>м |                           |       | σ,<br>МРa | Т,<br>kg | fm-см,<br>m | σ,<br>МРa | Т,<br>kg | fm-см,<br>m | σ,<br>МРa | Т,<br>kg | fm-см,<br>m | σ,<br>МРa | Т,<br>kg | fm-см,<br>m | σ,<br>МРa | Т,<br>kg | fm-см,<br>m | σ,<br>МРa | Т,<br>kg | fm-см,<br>m | σ,<br>МРa | Т,<br>kg | fm-см,<br>m | σ,<br>МРa | Т,<br>kg | fm-см,<br>m | σ,<br>МРa | Т,<br>kg | fm-см,<br>m |
| 65-66  | 265        | 253         | 300.72                    | 17.79 | 127.07    | 858.76   | 4.43        | 123.94    | 837.61   | 4.54        | 120.97    | 817.54   | 4.65        | 118.15    | 798.48   | 4.76        | 115.47    | 780.39   | 4.87        | 112.92    | 763.19   | 4.98        | 110.50    | 746.84   | 5.09        | 108.20    | 731.28   | 5.20        | 106.01    | 716.46   | 5.31        |
| 66-67  | 265        | 296         | 300.72                    | 17.79 | 127.07    | 858.76   | 6.06        | 123.94    | 837.61   | 6.21        | 120.97    | 817.54   | 6.36        | 118.15    | 798.48   | 6.52        | 115.47    | 780.39   | 6.67        | 112.92    | 763.19   | 6.82        | 110.50    | 746.84   | 6.97        | 108.20    | 731.28   | 7.11        | 106.01    | 716.46   | 7.26        |
| 67-68  | 265        | 261         | 300.72                    | 17.79 | 127.07    | 858.76   | 4.71        | 123.94    | 837.61   | 4.83        | 120.97    | 817.54   | 4.95        | 118.15    | 798.48   | 5.07        | 115.47    | 780.39   | 5.18        | 112.92    | 763.19   | 5.30        | 110.50    | 746.84   | 5.42        | 108.20    | 731.28   | 5.53        | 106.01    | 716.46   | 5.65        |
| 68-69  | 265        | 340         | 300.72                    | 17.79 | 127.07    | 858.76   | 7.99        | 123.94    | 837.61   | 8.19        | 120.97    | 817.54   | 8.40        | 118.15    | 798.48   | 8.60        | 115.47    | 780.39   | 8.80        | 112.92    | 763.19   | 8.99        | 110.50    | 746.84   | 9.19        | 108.20    | 731.28   | 9.39        | 106.01    | 716.46   | 9.58        |
| 69-70  | 265        | 208         | 300.72                    | 17.79 | 127.07    | 858.76   | 2.99        | 123.94    | 837.61   | 3.07        | 120.97    | 817.54   | 3.14        | 118.15    | 798.48   | 3.22        | 115.47    | 780.39   | 3.29        | 112.92    | 763.19   | 3.37        | 110.50    | 746.84   | 3.44        | 108.20    | 731.28   | 3.51        | 106.01    | 716.46   | 3.59        |
| 70-71  | 265        | 230         | 300.72                    | 17.79 | 127.07    | 858.76   | 3.66        | 123.94    | 837.61   | 3.75        | 120.97    | 817.54   | 3.84        | 118.15    | 798.48   | 3.93        | 115.47    | 780.39   | 4.02        | 112.92    | 763.19   | 4.12        | 110.50    | 746.84   | 4.21        | 108.20    | 731.28   | 4.30        | 106.01    | 716.46   | 4.38        |
| 71-72  | 265        | 321         | 300.72                    | 17.79 | 127.07    | 858.76   | 7.12        | 123.94    | 837.61   | 7.30        | 120.97    | 817.54   | 7.48        | 118.15    | 798.48   | 7.66        | 115.47    | 780.39   | 7.84        | 112.92    | 763.19   | 8.02        | 110.50    | 746.84   | 8.19        | 108.20    | 731.28   | 8.37        | 106.01    | 716.46   | 8.54        |
| 72-73  | 265        | 173         | 300.72                    | 17.79 | 127.07    | 858.76   | 2.07        | 123.94    | 837.61   | 2.12        | 120.97    | 817.54   | 2.17        | 118.15    | 798.48   | 2.23        | 115.47    | 780.39   | 2.28        | 112.92    | 763.19   | 2.33        | 110.50    | 746.84   | 2.38        | 108.20    | 731.28   | 2.43        | 106.01    | 716.46   | 2.48        |
| 73-74  | 265        | 353         | 300.72                    | 17.79 | 127.07    | 858.76   | 8.62        | 123.94    | 837.61   | 8.83        | 120.97    | 817.54   | 9.05        | 118.15    | 798.48   | 9.27        | 115.47    | 780.39   | 9.48        | 112.92    | 763.19   | 9.69        | 110.50    | 746.84   | 9.91        | 108.20    | 731.28   | 10.12       | 106.01    | 716.46   | 10.33       |
| 74-75  | 265        | 212         | 300.72                    | 17.79 | 127.07    | 858.76   | 3.11        | 123.94    | 837.61   | 3.19        | 120.97    | 817.54   | 3.26        | 118.15    | 798.48   | 3.34        | 115.47    | 780.39   | 3.42        | 112.92    | 763.19   | 3.50        | 110.50    | 746.84   | 3.57        | 108.20    | 731.28   | 3.65        | 106.01    | 716.46   | 3.72        |
| 75-76  | 265        | 268         | 300.72                    | 17.79 | 127.07    | 858.76   | 4.97        | 123.94    | 837.61   | 5.09        | 120.97    | 817.54   | 5.22        | 118.15    | 798.48   | 5.34        | 115.47    | 780.39   | 5.46        | 112.92    | 763.19   | 5.59        | 110.50    | 746.84   | 5.71        | 108.20    | 731.28   | 5.83        | 106.01    | 716.46   | 5.95        |
| 76-77  | 265        | 231         | 300.72                    | 17.79 | 127.07    | 858.76   | 3.69        | 123.94    | 837.61   | 3.78        | 120.97    | 817.54   | 3.88        | 118.15    | 798.48   | 3.97        | 115.47    | 780.39   | 4.06        | 112.92    | 763.19   | 4.15        | 110.50    | 746.84   | 4.24        | 108.20    | 731.28   | 4.33        | 106.01    | 716.46   | 4.42        |
| 77-78  | 265        | 225         | 300.72                    | 17.79 | 127.07    | 858.76   | 3.50        | 123.94    | 837.61   | 3.59        | 120.97    | 817.54   | 3.68        | 118.15    | 798.48   | 3.76        | 115.47    | 780.39   | 3.85        | 112.92    | 763.19   | 3.94        | 110.50    | 746.84   | 4.02        | 108.20    | 731.28   | 4.11        | 106.01    | 716.46   | 4.20        |
| 78-79  | 265        | 226         | 300.72                    | 17.79 | 127.07    | 858.76   | 3.53        | 123.94    | 837.61   | 3.62        | 120.97    | 817.54   | 3.71        | 118.15    | 798.48   | 3.80        | 115.47    | 780.39   | 3.89        | 112.92    | 763.19   | 3.97        | 110.50    | 746.84   | 4.06        | 108.20    | 731.28   | 4.15        | 106.01    | 716.46   | 4.23        |
| 79-80  | 265        | 227         | 300.72                    | 17.79 | 127.07    | 858.76   | 3.56        | 123.94    | 837.61   | 3.65        | 120.97    | 817.54   | 3.74        | 118.15    | 798.48   | 3.83        | 115.47    | 780.39   | 3.92        | 112.92    | 763.19   | 4.01        | 110.50    | 746.84   | 4.10        | 108.20    | 731.28   | 4.18        | 106.01    | 716.46   | 4.27        |
| 80-81  | 265        | 234         | 300.72                    | 17.79 | 127.07    | 858.76   | 3.79        | 123.94    | 837.61   | 3.88        | 120.97    | 817.54   | 3.98        | 118.15    | 798.48   | 4.07        | 115.47    | 780.39   | 4.17        | 112.92    | 763.19   | 4.26        | 110.50    | 746.84   | 4.35        | 108.20    | 731.28   | 4.45        | 106.01    | 716.46   | 4.54        |
| 81-82  | 265        | 177         | 300.72                    | 17.79 | 127.07    | 858.76   | 2.17        | 123.94    | 837.61   | 2.22        | 120.97    | 817.54   | 2.28        | 118.15    | 798.48   | 2.33        | 115.47    | 780.39   | 2.38        | 112.92    | 763.19   | 2.44        | 110.50    | 746.84   | 2.49        | 108.20    | 731.28   | 2.54        | 106.01    | 716.46   | 2.60        |
| 82-83  | 229        | 224         | 279.41                    | 17.21 | 122.37    | 827.02   | 3.60        | 118.85    | 803.27   | 3.71        | 115.54    | 780.85   | 3.82        | 112.41    | 759.71   | 3.92        | 109.45    | 739.74   | 4.03        | 106.67    | 720.89   | 4.13        | 104.03    | 703.07   | 4.24        | 101.54    | 686.23   | 4.34        | 99.18     | 670.28   | 4.44        |
| 83-84  | 229        | 241         | 279.41                    | 17.21 | 122.37    | 827.02   | 4.17        | 118.85    | 803.27   | 4.29        | 115.54    | 780.85   | 4.42        | 112.41    | 759.71   | 4.54        | 109.45    | 739.74   | 4.66        | 106.67    | 720.89   | 4.78        | 104.03    | 703.07   | 4.90        | 101.54    | 686.23   | 5.03        | 99.18     | 670.28   | 5.14        |
| 84-85  | 229        | 214         | 279.41                    | 17.21 | 122.37    | 827.02   | 3.29        | 118.85    | 803.27   | 3.39        | 115.54    | 780.85   | 3.48        | 112.41    | 759.71   | 3.58        | 109.45    | 739.74   | 3.68        | 106.67    | 720.89   | 3.77        | 104.03    | 703.07   | 3.87        | 101.54    | 686.23   | 3.96        | 99.18     | 670.28   | 4.06        |
| 85-86  | 229        | 226         | 279.41                    | 17.21 | 122.37    | 827.02   | 3.67        | 118.85    | 803.27   | 3.78        | 115.54    | 780.85   | 3.88        | 112.41    | 759.71   | 3.99        | 109.45    | 739.74   | 4.10        | 106.67    | 720.89   | 4.21        | 104.03    | 703.07   | 4.31        | 101.54    | 686.23   | 4.42        | 99.18     | 670.28   | 4.52        |
| 86-87  | 229        | 215         | 279.41                    | 17.21 | 122.37    | 827.02   | 3.32        | 118.85    | 803.27   | 3.42        | 115.54    | 780.85   | 3.51        | 112.41    | 759.71   | 3.61        | 109.45    | 739.74   | 3.71        | 106.67    | 720.89   | 3.81        | 104.03    | 703.07   | 3.90        | 101.54    | 686.23   | 4.00        | 99.18     | 670.28   | 4.09        |
| 87-88  | 229        | 244         | 279.41                    | 17.21 | 122.37    | 827.02   | 4.27        | 118.85    | 803.27   | 4.40        | 115.54    | 780.85   | 4.53        | 112.41    | 759.71   | 4.65        | 109.45    | 739.74   | 4.78        | 106.67    | 720.89   | 4.90        | 104.03    | 703.07   | 5.03        | 101.54    | 686.23   | 5.15        | 99.18     | 670.28   | 5.27        |
| 88-89  | 229        | 215         | 279.41                    | 17.21 | 122.37    | 827.02   | 3.32        | 118.85    | 803.27   | 3.42        | 115.54    | 780.85   | 3.51        | 112.41    | 759.71   | 3.61        | 109.45    | 739.74   | 3.71        | 106.67    | 720.89   | 3.81        | 104.03    | 703.07   | 3.90        | 101.54    | 686.23   | 4.00        | 99.18     | 670.28   | 4.09        |
| 89-90  | 229        | 249         | 279.41                    | 17.21 | 122.37    | 827.02   | 4.45        | 118.85    | 803.27   | 4.58        | 115.54    | 780.85   | 4.71        | 112.41    | 759.71   | 4.85        | 109.45    | 739.74   | 4.98        | 106.67    | 720.89   | 5.11        | 104.03    | 703.07   | 5.24        | 101.54    | 686.23   | 5.36        | 99.18     | 670.28   | 5.49        |
| 90-91  | 229        | 201         | 279.41                    | 17.21 | 122.37    | 827.02   | 2.90        | 118.85    | 803.27   | 2.99        | 115.54    | 780.85   | 3.07        | 112.41    | 759.71   | 3.16        | 109.45    | 739.74   | 3.24        | 106.67    | 720.89   | 3.33        | 104.03    | 703.07   | 3.41        | 101.54    | 686.23   | 3.50        | 99.18     | 670.28   | 3.58        |
| 91-92  | 229        | 272         | 279.41                    | 17.21 | 122.37    | 827.02   | 5.31        | 118.85    | 803.27   | 5.47        | 115.54    | 780.85   | 5.63        | 112.41    | 759.71   | 5.78        | 109.45    | 739.74   | 5.94        | 106.67    | 720.89   | 6.09        | 104.03    | 703.07   | 6.25        | 101.54    | 686.23   | 6.40        | 99.18     | 670.28   | 6.55        |
| 92-93  | 229        | 197         | 279.41                    | 17.21 | 122.37    | 827.02   | 2.79        | 118.85    | 803.27   | 2.87        | 115.54    | 780.85   | 2.95        | 112.41    | 759.71   | 3.03        | 109.45    | 739.74   | 3.11        | 106.67    | 720.89   | 3.20        | 104.03    | 703.07   | 3.28        | 101.54    | 686.23   | 3.36        | 99.18     | 670.28   | 3.44        |
| 93-94  | 229        | 247         | 279.41                    | 17.21 | 122.37    | 827.02   | 4.38        | 118.85    | 803.27   | 4.51        | 115.54    | 780.85   | 4.64        | 112.41    | 759.71   | 4.77        | 109.45    | 739.74   | 4.90        | 106.67    | 720.89   | 5.02        | 104.03    | 703.07   | 5.15        | 101.54    | 686.23   | 5.28        | 99.18     | 670.28   | 5.40        |
| 94-95  | 229        | 222         | 279.41                    | 17.21 | 122.37    | 827.02   | 3.54        | 118.85    | 803.27   | 3.64        | 115.54    | 780.85   | 3.75        | 112.41    | 759.71   | 3.85        | 109.45    | 739.74   | 3.96        | 106.67    | 720.89   | 4.06        | 104.03    | 703.07   | 4.16        | 101.54    | 686.23   | 4.26        | 99.18     | 670.28   | 4.37        |
| 95-96  | 229        | 203         | 279.41                    | 17.21 | 122.37    | 827.02   | 2.96        | 118.85    | 803.27   | 3.05        | 115.54    | 780.85   | 3.13        | 112.41    | 759.71   | 3.22        | 109.45    | 739.74   | 3.31        | 106.67    | 720.89   | 3.39        | 104.03    | 703.07   | 3.48        | 101.54    | 686.23   | 3.57        | 99.18     | 670.28   | 3.65        |
| 96-97  | 229        | 249         | 279.41                    | 17.21 | 122.37    | 827.02   | 4.45        | 118.85    | 803.27   | 4.58        | 115.54    | 780.85   | 4.71        | 112.41    | 759.71   | 4.85        | 109.45    | 739.74   | 4.98        | 106.67    | 720.89   | 5.11        | 104.03    | 703.07   | 5.24        | 101.54    | 686.23   | 5.36        | 99.18     | 670.28   | 5.49        |
| 97-98  | 229        | 233         | 279.41                    | 17.21 | 122.37    | 827.02   | 3.90        | 118.85    | 803.27   | 4.01        | 115.54    | 780.85   | 4.13        | 112.41    | 759.71   | 4.24        | 109.45    | 739.74   | 4.36        | 106.67    | 720.89   | 4.47        | 104.03    | 703.07   | 4.58        | 101.54    | 686.23   | 4.70        | 99.18     | 670.28   | 4.81        |
| 98-99  | 229        | 207         | 279.41                    | 17.21 | 122.37    | 827.02   | 3.08        | 118.85    | 803.27   | 3.17        | 115.54    | 780.85   | 3.26        | 112.41    | 759.71   | 3.35        | 109.45    | 739.74   | 3.44        | 106.67    | 720.89   | 3.53        | 104.03    | 703.07   | 3.62        | 101.54    | 686.23   | 3.71        | 99.18     | 670.28   | 3.80        |
| 99-100 | 229        | 199         | 279.41                    | 17.21 | 122.37    | 827.02   | 2.84        | 118.85    | 803.27   | 2.93        | 115.54    | 780.85   | 3.01        | 112.41    | 759.71   | 3.10        | 109.45    | 739.74   | 3.18        | 106.67    | 720.89   | 3.26        | 104.03    | 703.07   | 3.34        | 101.54    | 686.23   | 3.43        | 99.18     | 670.28   |             |

Обект: Реконструкция на ВЛ 110kV Близнак  
Част: Електрическа и геология  
Документ: Приложение №14  
Заглавие: Монтажна таблица на м.з. въжета

| θм, °С  |         |          | σ <sub>max</sub> , МПа | ΔТ°   | 0      |        |          | 5      |        |          | 10     |        |          | 15     |        |          | 20     |        |          | 25     |        |          | 30     |        |          | 35     |        |          | 40     |        |          |
|---------|---------|----------|------------------------|-------|--------|--------|----------|--------|--------|----------|--------|--------|----------|--------|--------|----------|--------|--------|----------|--------|--------|----------|--------|--------|----------|--------|--------|----------|--------|--------|----------|
| м-см    | l пр, м | lм-см, м |                        |       | σ, МПа | Т, кг  | fm-см, м | σ, МПа | Т, кг  | fm-см, м | σ, МПа | Т, кг  | fm-см, м | σ, МПа | Т, кг  | fm-см, м | σ, МПа | Т, кг  | fm-см, м | σ, МПа | Т, кг  | fm-см, м | σ, МПа | Т, кг  | fm-см, м | σ, МПа | Т, кг  | fm-см, м | σ, МПа | Т, кг  | fm-см, м |
| 129-130 | 243     | 215      | 318.95                 | 15.03 | 89.44  | 604.50 | 4.54     | 87.86  | 593.80 | 4.62     | 86.35  | 583.58 | 4.70     | 84.90  | 573.79 | 4.78     | 83.51  | 564.42 | 4.86     | 82.19  | 555.45 | 4.94     | 80.91  | 546.83 | 5.02     | 79.69  | 538.56 | 5.10     | 78.51  | 530.62 | 5.17     |
| 130-131 | 243     | 254      | 318.95                 | 15.03 | 89.44  | 604.50 | 6.34     | 87.86  | 593.80 | 6.45     | 86.35  | 583.58 | 6.56     | 84.90  | 573.79 | 6.68     | 83.51  | 564.42 | 6.79     | 82.19  | 555.45 | 6.90     | 80.91  | 546.83 | 7.01     | 79.69  | 538.56 | 7.11     | 78.51  | 530.62 | 7.22     |
| 131-132 | 243     | 294      | 318.95                 | 15.03 | 89.44  | 604.50 | 8.49     | 87.86  | 593.80 | 8.64     | 86.35  | 583.58 | 8.79     | 84.90  | 573.79 | 8.94     | 83.51  | 564.42 | 9.09     | 82.19  | 555.45 | 9.24     | 80.91  | 546.83 | 9.39     | 79.69  | 538.56 | 9.53     | 78.51  | 530.62 | 9.67     |
| 132-133 | 243     | 272      | 318.95                 | 15.03 | 89.44  | 604.50 | 7.24     | 87.86  | 593.80 | 7.37     | 86.35  | 583.58 | 7.50     | 84.90  | 573.79 | 7.63     | 83.51  | 564.42 | 7.75     | 82.19  | 555.45 | 7.88     | 80.91  | 546.83 | 8.00     | 79.69  | 538.56 | 8.13     | 78.51  | 530.62 | 8.25     |
| 133-134 | 234     | 287      | 321.43                 | 15.36 | 94.62  | 639.50 | 7.67     | 92.68  | 626.39 | 7.83     | 90.84  | 613.93 | 7.99     | 89.08  | 602.06 | 8.15     | 87.41  | 590.75 | 8.31     | 85.81  | 579.97 | 8.46     | 84.29  | 569.67 | 8.61     | 82.84  | 559.84 | 8.77     | 81.44  | 550.43 | 8.92     |
| 134-135 | 234     | 198      | 321.43                 | 15.36 | 94.62  | 639.50 | 3.64     | 92.68  | 626.39 | 3.72     | 90.84  | 613.93 | 3.79     | 89.08  | 602.06 | 3.87     | 87.41  | 590.75 | 3.94     | 85.81  | 579.97 | 4.01     | 84.29  | 569.67 | 4.09     | 82.84  | 559.84 | 4.16     | 81.44  | 550.43 | 4.23     |
| 135-136 | 234     | 186      | 321.43                 | 15.36 | 94.62  | 639.50 | 3.21     | 92.68  | 626.39 | 3.28     | 90.84  | 613.93 | 3.35     | 89.08  | 602.06 | 3.41     | 87.41  | 590.75 | 3.48     | 85.81  | 579.97 | 3.54     | 84.29  | 569.67 | 3.61     | 82.84  | 559.84 | 3.67     | 81.44  | 550.43 | 3.73     |
| 136-137 | 234     | 335      | 321.43                 | 15.36 | 94.62  | 639.50 | 10.42    | 92.68  | 626.39 | 10.64    | 90.84  | 613.93 | 10.85    | 89.08  | 602.06 | 11.07    | 87.41  | 590.75 | 11.28    | 85.81  | 579.97 | 11.49    | 84.29  | 569.67 | 11.70    | 82.84  | 559.84 | 11.90    | 81.44  | 550.43 | 12.11    |
| 137-138 | 234     | 148      | 321.43                 | 15.36 | 94.62  | 639.50 | 2.03     | 92.68  | 626.39 | 2.08     | 90.84  | 613.93 | 2.12     | 89.08  | 602.06 | 2.16     | 87.41  | 590.75 | 2.20     | 85.81  | 579.97 | 2.24     | 84.29  | 569.67 | 2.28     | 82.84  | 559.84 | 2.32     | 81.44  | 550.43 | 2.36     |
| 138-139 | 234     | 341      | 321.43                 | 15.36 | 94.62  | 639.50 | 10.80    | 92.68  | 626.39 | 11.02    | 90.84  | 613.93 | 11.25    | 89.08  | 602.06 | 11.47    | 87.41  | 590.75 | 11.69    | 85.81  | 579.97 | 11.90    | 84.29  | 569.67 | 12.12    | 82.84  | 559.84 | 12.33    | 81.44  | 550.43 | 12.54    |
| 139-140 | 234     | 186      | 321.43                 | 15.36 | 94.62  | 639.50 | 3.21     | 92.68  | 626.39 | 3.28     | 90.84  | 613.93 | 3.35     | 89.08  | 602.06 | 3.41     | 87.41  | 590.75 | 3.48     | 85.81  | 579.97 | 3.54     | 84.29  | 569.67 | 3.61     | 82.84  | 559.84 | 3.67     | 81.44  | 550.43 | 3.73     |
| 140-141 | 234     | 172      | 321.43                 | 15.36 | 94.62  | 639.50 | 2.75     | 92.68  | 626.39 | 2.80     | 90.84  | 613.93 | 2.86     | 89.08  | 602.06 | 2.92     | 87.41  | 590.75 | 2.97     | 85.81  | 579.97 | 3.03     | 84.29  | 569.67 | 3.08     | 82.84  | 559.84 | 3.14     | 81.44  | 550.43 | 3.19     |
| 141-142 | 234     | 180      | 321.43                 | 15.36 | 94.62  | 639.50 | 3.01     | 92.68  | 626.39 | 3.07     | 90.84  | 613.93 | 3.14     | 89.08  | 602.06 | 3.20     | 87.41  | 590.75 | 3.26     | 85.81  | 579.97 | 3.32     | 84.29  | 569.67 | 3.38     | 82.84  | 559.84 | 3.44     | 81.44  | 550.43 | 3.50     |
| 142-143 | 234     | 159      | 321.43                 | 15.36 | 94.62  | 639.50 | 2.35     | 92.68  | 626.39 | 2.39     | 90.84  | 613.93 | 2.44     | 89.08  | 602.06 | 2.49     | 87.41  | 590.75 | 2.54     | 85.81  | 579.97 | 2.59     | 84.29  | 569.67 | 2.63     | 82.84  | 559.84 | 2.68     | 81.44  | 550.43 | 2.73     |
| 143-144 | 234     | 153      | 321.43                 | 15.36 | 94.62  | 639.50 | 2.17     | 92.68  | 626.39 | 2.22     | 90.84  | 613.93 | 2.26     | 89.08  | 602.06 | 2.31     | 87.41  | 590.75 | 2.35     | 85.81  | 579.97 | 2.40     | 84.29  | 569.67 | 2.44     | 82.84  | 559.84 | 2.48     | 81.44  | 550.43 | 2.53     |
| 144-145 | 234     | 178      | 321.43                 | 15.36 | 94.62  | 639.50 | 2.94     | 92.68  | 626.39 | 3.00     | 90.84  | 613.93 | 3.06     | 89.08  | 602.06 | 3.12     | 87.41  | 590.75 | 3.18     | 85.81  | 579.97 | 3.24     | 84.29  | 569.67 | 3.30     | 82.84  | 559.84 | 3.36     | 81.44  | 550.43 | 3.42     |
| 145-146 | 234     | 185      | 321.43                 | 15.36 | 94.62  | 639.50 | 3.18     | 92.68  | 626.39 | 3.24     | 90.84  | 613.93 | 3.31     | 89.08  | 602.06 | 3.38     | 87.41  | 590.75 | 3.44     | 85.81  | 579.97 | 3.50     | 84.29  | 569.67 | 3.57     | 82.84  | 559.84 | 3.63     | 81.44  | 550.43 | 3.69     |
| 146-147 | 234     | 196      | 321.43                 | 15.36 | 94.62  | 639.50 | 3.57     | 92.68  | 626.39 | 3.64     | 90.84  | 613.93 | 3.72     | 89.08  | 602.06 | 3.79     | 87.41  | 590.75 | 3.86     | 85.81  | 579.97 | 3.93     | 84.29  | 569.67 | 4.00     | 82.84  | 559.84 | 4.07     | 81.44  | 550.43 | 4.14     |
| 147-148 | 234     | 101      | 321.43                 | 15.36 | 94.62  | 639.50 | 0.95     | 92.68  | 626.39 | 0.97     | 90.84  | 613.93 | 0.99     | 89.08  | 602.06 | 1.01     | 87.41  | 590.75 | 1.03     | 85.81  | 579.97 | 1.04     | 84.29  | 569.67 | 1.06     | 82.84  | 559.84 | 1.08     | 81.44  | 550.43 | 1.10     |
| 148-149 | 249     | 191      | 326.15                 | 15.27 | 92.34  | 624.08 | 3.47     | 90.69  | 612.93 | 3.53     | 89.11  | 602.26 | 3.60     | 87.60  | 592.06 | 3.66     | 86.16  | 582.29 | 3.72     | 84.77  | 572.93 | 3.78     | 83.44  | 563.95 | 3.84     | 82.17  | 555.33 | 3.90     | 80.94  | 547.05 | 3.96     |
| 149-150 | 249     | 192      | 326.15                 | 15.27 | 92.34  | 624.08 | 3.51     | 90.69  | 612.93 | 3.57     | 89.11  | 602.26 | 3.63     | 87.60  | 592.06 | 3.70     | 86.16  | 582.29 | 3.76     | 84.77  | 572.93 | 3.82     | 83.44  | 563.95 | 3.88     | 82.17  | 555.33 | 3.94     | 80.94  | 547.05 | 4.00     |
| 150-151 | 249     | 185      | 326.15                 | 15.27 | 92.34  | 624.08 | 3.26     | 90.69  | 612.93 | 3.32     | 89.11  | 602.26 | 3.37     | 87.60  | 592.06 | 3.43     | 86.16  | 582.29 | 3.49     | 84.77  | 572.93 | 3.55     | 83.44  | 563.95 | 3.60     | 82.17  | 555.33 | 3.66     | 80.94  | 547.05 | 3.71     |
| 151-152 | 249     | 144      | 326.15                 | 15.27 | 92.34  | 624.08 | 1.98     | 90.69  | 612.93 | 2.01     | 89.11  | 602.26 | 2.05     | 87.60  | 592.06 | 2.08     | 86.16  | 582.29 | 2.12     | 84.77  | 572.93 | 2.15     | 83.44  | 563.95 | 2.19     | 82.17  | 555.33 | 2.22     | 80.94  | 547.05 | 2.26     |
| 152-153 | 249     | 157      | 326.15                 | 15.27 | 92.34  | 624.08 | 2.34     | 90.    |        |          |        |        |          |        |        |          |        |        |          |        |        |          |        |        |          |        |        |          |        |        |          |

Обект: Реконструкция на ВЛ 110kV Близнак  
Част: Електрическа и геология  
Документ: Приложение №14  
Заглавие: Монтажна таблица на м.з. въжета

| θм, °С  |         |          | σ <sub>max</sub> , МПа | ΔТ°   | 0      |        |          | 5      |        |          | 10     |        |          | 15     |        |          | 20     |        |          | 25     |        |          | 30     |        |          | 35     |        |          | 40     |        |          |
|---------|---------|----------|------------------------|-------|--------|--------|----------|--------|--------|----------|--------|--------|----------|--------|--------|----------|--------|--------|----------|--------|--------|----------|--------|--------|----------|--------|--------|----------|--------|--------|----------|
| м-см    | l пр, м | lм-см, м |                        |       | σ, МПа | Т, кг  | fm-см, м | σ, МПа | Т, кг  | fm-см, м | σ, МПа | Т, кг  | fm-см, м | σ, МПа | Т, кг  | fm-см, м | σ, МПа | Т, кг  | fm-см, м | σ, МПа | Т, кг  | fm-см, м | σ, МПа | Т, кг  | fm-см, м | σ, МПа | Т, кг  | fm-см, м | σ, МПа | Т, кг  | fm-см, м |
| 193-194 | 305     | 206      | 314.11                 | 17.80 | 123.59 | 835.28 | 3.02     | 121.19 | 819.06 | 3.08     | 118.90 | 803.56 | 3.14     | 116.71 | 788.74 | 3.19     | 114.61 | 774.56 | 3.25     | 112.60 | 760.97 | 3.31     | 110.67 | 747.95 | 3.37     | 108.82 | 735.47 | 3.43     | 107.05 | 723.49 | 3.48     |
| 194-195 | 305     | 223      | 314.11                 | 17.80 | 123.59 | 835.28 | 3.53     | 121.19 | 819.06 | 3.60     | 118.90 | 803.56 | 3.67     | 116.71 | 788.74 | 3.74     | 114.61 | 774.56 | 3.81     | 112.60 | 760.97 | 3.88     | 110.67 | 747.95 | 3.95     | 108.82 | 735.47 | 4.01     | 107.05 | 723.49 | 4.08     |
| 195-196 | 305     | 225      | 314.11                 | 17.80 | 123.59 | 835.28 | 3.59     | 121.19 | 819.06 | 3.66     | 118.90 | 803.56 | 3.73     | 116.71 | 788.74 | 3.80     | 114.61 | 774.56 | 3.87     | 112.60 | 760.97 | 3.94     | 110.67 | 747.95 | 4.01     | 108.82 | 735.47 | 4.08     | 107.05 | 723.49 | 4.15     |
| 196-197 | 246     | 169      | 294.56                 | 17.85 | 130.03 | 878.82 | 1.93     | 126.42 | 854.42 | 1.99     | 123.01 | 831.32 | 2.05     | 119.77 | 809.48 | 2.10     | 116.72 | 788.81 | 2.16     | 113.82 | 769.24 | 2.21     | 111.08 | 750.71 | 2.26     | 108.48 | 733.15 | 2.32     | 106.02 | 716.50 | 2.37     |
| 197-198 | 246     | 214      | 294.56                 | 17.85 | 130.03 | 878.82 | 3.09     | 126.42 | 854.42 | 3.18     | 123.01 | 831.32 | 3.27     | 119.77 | 809.48 | 3.36     | 116.72 | 788.81 | 3.45     | 113.82 | 769.24 | 3.53     | 111.08 | 750.71 | 3.62     | 108.48 | 733.15 | 3.71     | 106.02 | 716.50 | 3.80     |
| 198-199 | 246     | 242      | 294.56                 | 17.85 | 130.03 | 878.82 | 3.96     | 126.42 | 854.42 | 4.07     | 123.01 | 831.32 | 4.18     | 119.77 | 809.48 | 4.30     | 116.72 | 788.81 | 4.41     | 113.82 | 769.24 | 4.52     | 111.08 | 750.71 | 4.63     | 108.48 | 733.15 | 4.74     | 106.02 | 716.50 | 4.85     |
| 199-200 | 246     | 261      | 294.56                 | 17.85 | 130.03 | 878.82 | 4.61     | 126.42 | 854.42 | 4.74     | 123.01 | 831.32 | 4.87     | 119.77 | 809.48 | 5.00     | 116.72 | 788.81 | 5.13     | 113.82 | 769.24 | 5.26     | 111.08 | 750.71 | 5.39     | 108.48 | 733.15 | 5.52     | 106.02 | 716.50 | 5.65     |
| 200-201 | 246     | 266      | 294.56                 | 17.85 | 130.03 | 878.82 | 4.78     | 126.42 | 854.42 | 4.91     | 123.01 | 831.32 | 5.05     | 119.77 | 809.48 | 5.19     | 116.72 | 788.81 | 5.32     | 113.82 | 769.24 | 5.46     | 111.08 | 750.71 | 5.59     | 108.48 | 733.15 | 5.73     | 106.02 | 716.50 | 5.86     |
| 201-202 | 246     | 339      | 294.56                 | 17.85 | 130.03 | 878.82 | 7.76     | 126.42 | 854.42 | 7.99     | 123.01 | 831.32 | 8.21     | 119.77 | 809.48 | 8.43     | 116.72 | 788.81 | 8.65     | 113.82 | 769.24 | 8.87     | 111.08 | 750.71 | 9.09     | 108.48 | 733.15 | 9.31     | 106.02 | 716.50 | 9.52     |
| 202-203 | 246     | 247      | 294.56                 | 17.85 | 130.03 | 878.82 | 4.12     | 126.42 | 854.42 | 4.24     | 123.01 | 831.32 | 4.36     | 119.77 | 809.48 | 4.47     | 116.72 | 788.81 | 4.59     | 113.82 | 769.24 | 4.71     | 111.08 | 750.71 | 4.83     | 108.48 | 733.15 | 4.94     | 106.02 | 716.50 | 5.06     |
| 203-204 | 246     | 226      | 294.56                 | 17.85 | 130.03 | 878.82 | 3.45     | 126.42 | 854.42 | 3.55     | 123.01 | 831.32 | 3.65     | 119.77 | 809.48 | 3.75     | 116.72 | 788.81 | 3.84     | 113.82 | 769.24 | 3.94     | 111.08 | 750.71 | 4.04     | 108.48 | 733.15 | 4.14     | 106.02 | 716.50 | 4.23     |
| 204-205 | 246     | 158      | 294.56                 | 17.85 | 130.03 | 878.82 | 1.69     | 126.42 | 854.42 | 1.73     | 123.01 | 831.32 | 1.78     | 119.77 | 809.48 | 1.83     | 116.72 | 788.81 | 1.88     | 113.82 | 769.24 | 1.93     | 111.08 | 750.71 | 1.97     | 108.48 | 733.15 | 2.02     | 106.02 | 716.50 | 2.07     |
| 205-206 | 246     | 208      | 294.56                 | 17.85 | 130.03 | 878.82 | 2.92     | 126.42 | 854.42 | 3.01     | 123.01 | 831.32 | 3.09     | 119.77 | 809.48 | 3.17     | 116.72 | 788.81 | 3.26     | 113.82 | 769.24 | 3.34     | 111.08 | 750.71 | 3.42     | 108.48 | 733.15 | 3.50     | 106.02 | 716.50 | 3.59     |
| 206-207 | 246     | 218      | 294.56                 | 17.85 | 130.03 | 878.82 | 3.20     | 126.42 | 854.42 | 3.30     | 123.01 | 831.32 | 3.39     | 119.77 | 809.48 | 3.48     | 116.72 | 788.81 | 3.57     | 113.82 | 769.24 | 3.66     | 111.08 | 750.71 | 3.75     | 108.48 | 733.15 | 3.84     | 106.02 | 716.50 | 3.93     |
| 207-208 | 476     | 622      | 335.95                 | 17.15 | 108.52 | 733.43 | 31.34    | 107.71 | 727.93 | 31.58    | 106.91 | 722.55 | 31.82    | 106.13 | 717.27 | 32.05    | 105.37 | 712.10 | 32.28    | 104.62 | 707.04 | 32.51    | 103.88 | 702.07 | 32.74    | 103.16 | 697.20 | 32.97    | 102.45 | 692.42 | 33.20    |
| 208-209 | 476     | 396      | 335.95                 | 17.15 | 108.52 | 733.43 | 12.71    | 107.71 | 727.93 | 12.81    | 106.91 | 722.55 | 12.90    | 106.13 | 717.27 | 13.00    | 105.37 | 712.10 | 13.09    | 104.62 | 707.04 | 13.19    | 103.88 | 702.07 | 13.28    | 103.16 | 697.20 | 13.37    | 102.45 | 692.42 | 13.47    |
| 209-210 | 476     | 198      | 335.95                 | 17.15 | 108.52 | 733.43 | 3.16     | 107.71 | 727.93 | 3.19     | 106.91 | 722.55 | 3.21     | 106.13 | 717.27 | 3.24     | 105.37 | 712.10 | 3.26     | 104.62 | 707.04 | 3.28     | 103.88 | 702.07 | 3.31     | 103.16 | 697.20 | 3.33     | 102.45 | 692.42 | 3.35     |
| 210-211 | 476     | 356      | 335.95                 | 17.15 | 108.52 | 733.43 | 10.26    | 107.71 | 727.93 | 10.34    | 106.91 | 722.55 | 10.41    | 106.13 | 717.27 | 10.49    | 105.37 | 712.10 | 10.57    | 104.62 | 707.04 | 10.64    | 103.88 | 702.07 | 10.72    | 103.16 | 697.20 | 10.79    | 102.45 | 692.42 | 10.87    |
| 211-212 | 324     | 157      | 318.04                 | 17.72 | 121.14 | 818.69 | 1.79     | 119.05 | 804.56 | 1.82     | 117.04 | 791.01 | 1.85     | 115.12 | 777.99 | 1.88     | 113.27 | 765.50 | 1.91     | 111.49 | 753.49 | 1.94     | 109.78 | 741.94 | 1.97     | 108.14 | 730.83 | 2.00     | 106.55 | 720.14 | 2.03     |
| 212-213 | 324     | 460      | 318.04                 | 17.72 | 121.14 | 818.69 | 15.35    | 119.05 | 804.56 | 15.62    | 117.04 | 791.01 | 15.88    | 115.12 | 777.99 | 16.15    | 113.27 | 765.50 | 16.41    | 111.49 | 753.49 | 16.67    | 109.78 | 741.94 | 16.93    | 108.14 | 730.83 | 17.19    | 106.55 | 720.14 | 17.45    |
| 213-214 | 324     | 244      | 318.04                 | 17.72 | 121.14 | 818.69 | 4.32     | 119.05 | 804.56 | 4.39     | 117.04 | 791.01 | 4.47     | 115.12 | 777.99 | 4.54     | 113.27 | 765.50 | 4.62     | 111.49 | 753.49 | 4.69     | 109.78 | 741.94 | 4.76     | 108.14 | 730.83 | 4.84     | 106.55 | 720.14 | 4.91     |
| 214-215 | 324     | 352      | 318.04                 | 17.72 | 121.14 | 818.69 | 8.99     | 119.05 | 804.56 | 9.14     | 117.04 | 791.01 | 9.30     | 115.12 | 777.99 | 9.46     | 113.27 | 765.50 | 9.61     | 111.49 | 753.49 | 9.76     | 109.78 | 741.94 | 9.92     | 108.14 | 730.83 | 10.07    | 106.55 | 720.14 | 10.22    |
| 215-216 | 324     | 293      | 318.04                 | 17.72 | 121.14 | 818.69 | 6.23     | 119.05 | 804.56 | 6.34     | 117.04 | 791.01 | 6.44     | 115.12 | 777.99 | 6.55     | 113.27 | 765.7  |          |        |        |          |        |        |          |        |        |          |        |        |          |

Обект: Реконструкция на ВЛ 110kV Близак  
Част: Електрическа и геология  
Документ: Приложение №14  
Заглавие: Монтажна таблица на м.з. въжета

| θм, °С  |            |             | σтах,<br>МПа | ΔТ°   | 0         |          |             | 5         |          |             | 10        |          |             | 15        |          |             | 20        |          |             | 25        |          |             | 30        |          |             | 35        |          |             | 40        |          |             |
|---------|------------|-------------|--------------|-------|-----------|----------|-------------|-----------|----------|-------------|-----------|----------|-------------|-----------|----------|-------------|-----------|----------|-------------|-----------|----------|-------------|-----------|----------|-------------|-----------|----------|-------------|-----------|----------|-------------|
| м-см    | l пр,<br>м | lм-см,<br>м |              |       | σ,<br>МПа | Т,<br>kg | fm-см,<br>m | σ,<br>МПа | Т,<br>kg | fm-см,<br>m | σ,<br>МПа | Т,<br>kg | fm-см,<br>m | σ,<br>МПа | Т,<br>kg | fm-см,<br>m | σ,<br>МПа | Т,<br>kg | fm-см,<br>m | σ,<br>МПа | Т,<br>kg | fm-см,<br>m | σ,<br>МПа | Т,<br>kg | fm-см,<br>m | σ,<br>МПа | Т,<br>kg | fm-см,<br>m | σ,<br>МПа | Т,<br>kg | fm-см,<br>m |
| 257-258 | 258        | 160         | 327.35       | 15.16 | 90.30     | 610.31   | 2.49        | 88.83     | 600.36   | 2.53        | 87.42     | 590.83   | 2.57        | 86.07     | 581.68   | 2.61        | 84.77     | 572.89   | 2.65        | 83.52     | 564.45   | 2.69        | 82.32     | 556.32   | 2.73        | 81.16     | 548.50   | 2.77        | 80.04     | 540.97   | 2.81        |
| 258-259 | 258        | 294         | 327.35       | 15.16 | 90.30     | 610.31   | 8.41        | 88.83     | 600.36   | 8.55        | 87.42     | 590.83   | 8.69        | 86.07     | 581.68   | 8.82        | 84.77     | 572.89   | 8.96        | 83.52     | 564.45   | 9.09        | 82.32     | 556.32   | 9.23        | 81.16     | 548.50   | 9.36        | 80.04     | 540.97   | 9.49        |
| 259-260 | 258        | 150         | 327.35       | 15.16 | 90.30     | 610.31   | 2.20        | 88.83     | 600.36   | 2.23        | 87.42     | 590.83   | 2.27        | 86.07     | 581.68   | 2.31        | 84.77     | 572.89   | 2.34        | 83.52     | 564.45   | 2.38        | 82.32     | 556.32   | 2.41        | 81.16     | 548.50   | 2.44        | 80.04     | 540.97   | 2.48        |
| 260-261 | 258        | 282         | 327.35       | 15.16 | 90.30     | 610.31   | 7.74        | 88.83     | 600.36   | 7.86        | 87.42     | 590.83   | 7.99        | 86.07     | 581.68   | 8.12        | 84.77     | 572.89   | 8.24        | 83.52     | 564.45   | 8.37        | 82.32     | 556.32   | 8.49        | 81.16     | 548.50   | 8.61        | 80.04     | 540.97   | 8.73        |
| 261-262 | 258        | 200         | 327.35       | 15.16 | 90.30     | 610.31   | 3.88        | 88.83     | 600.36   | 3.94        | 87.42     | 590.83   | 4.01        | 86.07     | 581.68   | 4.07        | 84.77     | 572.89   | 4.13        | 83.52     | 564.45   | 4.20        | 82.32     | 556.32   | 4.26        | 81.16     | 548.50   | 4.32        | 80.04     | 540.97   | 4.38        |
| 262-263 | 258        | 308         | 327.35       | 15.16 | 90.30     | 610.31   | 9.25        | 88.83     | 600.36   | 9.40        | 87.42     | 590.83   | 9.55        | 86.07     | 581.68   | 9.70        | 84.77     | 572.89   | 9.85        | 83.52     | 564.45   | 10.00       | 82.32     | 556.32   | 10.14       | 81.16     | 548.50   | 10.29       | 80.04     | 540.97   | 10.43       |
| 263-263 | 258        | 190         | 327.35       | 15.16 | 90.30     | 610.31   | 3.51        | 88.83     | 600.36   | 3.57        | 87.42     | 590.83   | 3.63        | 86.07     | 581.68   | 3.68        | 84.77     | 572.89   | 3.74        | 83.52     | 564.45   | 3.80        | 82.32     | 556.32   | 3.85        | 81.16     | 548.50   | 3.91        | 80.04     | 540.97   | 3.96        |
| 263-264 | 258        | 129         | 327.35       | 15.16 | 90.30     | 610.31   | 1.61        | 88.83     | 600.36   | 1.64        | 87.42     | 590.83   | 1.66        | 86.07     | 581.68   | 1.69        | 84.77     | 572.89   | 1.72        | 83.52     | 564.45   | 1.74        | 82.32     | 556.32   | 1.77        | 81.16     | 548.50   | 1.79        | 80.04     | 540.97   | 1.82        |
| 264-266 | 205        | 272         | 298.65       | 14.87 | 90.00     | 608.25   | 7.22        | 87.88     | 593.93   | 7.40        | 85.88     | 580.41   | 7.57        | 83.99     | 567.61   | 7.74        | 82.19     | 555.49   | 7.91        | 80.49     | 543.99   | 8.08        | 78.88     | 533.08   | 8.24        | 77.34     | 522.71   | 8.40        | 75.88     | 512.85   | 8.57        |
| 266-267 | 205        | 188         | 298.65       | 14.87 | 90.00     | 608.25   | 3.45        | 87.88     | 593.93   | 3.53        | 85.88     | 580.41   | 3.62        | 83.99     | 567.61   | 3.70        | 82.19     | 555.49   | 3.78        | 80.49     | 543.99   | 3.86        | 78.88     | 533.08   | 3.94        | 77.34     | 522.71   | 4.01        | 75.88     | 512.85   | 4.09        |
| 267-268 | 205        | 171         | 298.65       | 14.87 | 90.00     | 608.25   | 2.85        | 87.88     | 593.93   | 2.92        | 85.88     | 580.41   | 2.99        | 83.99     | 567.61   | 3.06        | 82.19     | 555.49   | 3.13        | 80.49     | 543.99   | 3.19        | 78.88     | 533.08   | 3.26        | 77.34     | 522.71   | 3.32        | 75.88     | 512.85   | 3.39        |
| 268-269 | 205        | 171         | 298.65       | 14.87 | 90.00     | 608.25   | 2.85        | 87.88     | 593.93   | 2.92        | 85.88     | 580.41   | 2.99        | 83.99     | 567.61   | 3.06        | 82.19     | 555.49   | 3.13        | 80.49     | 543.99   | 3.19        | 78.88     | 533.08   | 3.26        | 77.34     | 522.71   | 3.32        | 75.88     | 512.85   | 3.39        |
| 269-270 | 205        | 194         | 298.65       | 14.87 | 90.00     | 608.25   | 3.67        | 87.88     | 593.93   | 3.76        | 85.88     | 580.41   | 3.85        | 83.99     | 567.61   | 3.94        | 82.19     | 555.49   | 4.02        | 80.49     | 543.99   | 4.11        | 78.88     | 533.08   | 4.19        | 77.34     | 522.71   | 4.28        | 75.88     | 512.85   | 4.36        |
| 270-271 | 205        | 206         | 298.65       | 14.87 | 90.00     | 608.25   | 4.14        | 87.88     | 593.93   | 4.24        | 85.88     | 580.41   | 4.34        | 83.99     | 567.61   | 4.44        | 82.19     | 555.49   | 4.54        | 80.49     | 543.99   | 4.63        | 78.88     | 533.08   | 4.73        | 77.34     | 522.71   | 4.82        | 75.88     | 512.85   | 4.91        |
| 271-272 | 205        | 164         | 298.65       | 14.87 | 90.00     | 608.25   | 2.63        | 87.88     | 593.93   | 2.69        | 85.88     | 580.41   | 2.75        | 83.99     | 567.61   | 2.81        | 82.19     | 555.49   | 2.87        | 80.49     | 543.99   | 2.94        | 78.88     | 533.08   | 3.00        | 77.34     | 522.71   | 3.06        | 75.88     | 512.85   | 3.11        |
| 272-273 | 197        | 197         | 294.69       | 14.86 | 90.62     | 612.48   | 3.76        | 88.34     | 597.05   | 3.86        | 86.19     | 582.51   | 3.96        | 84.16     | 568.80   | 4.05        | 82.24     | 555.84   | 4.15        | 80.43     | 543.60   | 4.24        | 78.72     | 532.00   | 4.33        | 77.09     | 521.01   | 4.42        | 75.55     | 510.58   | 4.51        |
| 273-274 | 199        | 199         | 295.14       | 14.84 | 90.22     | 609.74   | 3.84        | 87.99     | 594.64   | 3.93        | 85.88     | 580.41   | 4.03        | 83.89     | 566.98   | 4.13        | 82.01     | 554.28   | 4.22        | 80.24     | 542.27   | 4.31        | 78.55     | 530.88   | 4.41        | 76.95     | 520.09   | 4.50        | 75.44     | 509.83   | 4.59        |
| 274-275 | 182        | 173         | 291.05       | 15.15 | 96.82     | 654.32   | 2.72        | 93.84     | 634.20   | 2.80        | 91.05     | 615.38   | 2.89        | 88.45     | 597.77   | 2.97        | 86.01     | 581.27   | 3.06        | 83.72     | 565.78   | 3.14        | 81.56     | 551.24   | 3.22        | 79.54     | 537.57   | 3.31        | 77.64     | 524.69   | 3.39        |
| 275-276 | 182        | 155         | 291.05       | 15.15 | 96.82     | 654.32   | 2.18        | 93.84     | 634.20   | 2.25        | 91.05     | 615.38   | 2.32        | 88.45     | 597.77   | 2.39        | 86.01     | 581.27   | 2.45        | 83.72     | 565.78   | 2.52        | 81.56     | 551.24   | 2.59        | 79.54     | 537.57   | 2.65        | 77.64     | 524.69   | 2.72        |
| 276-277 | 182        | 202         | 291.05       | 15.15 | 96.82     | 654.32   | 3.71        | 93.84     | 634.20   | 3.83        | 91.05     | 615.38   | 3.94        | 88.45     | 597.77   | 4.06        | 86.01     | 581.27   | 4.18        | 83.72     | 565.78   | 4.29        | 81.56     | 551.24   | 4.40        | 79.54     | 537.57   | 4.52        | 77.64     | 524.69   | 4.63        |
| 277-278 | 182        | 186         | 291.05       | 15.15 | 96.82     | 654.32   | 3.14        | 93.84     | 634.20   | 3.24        | 91.05     | 615.38   | 3.33        | 88.45     | 597.77   | 3.43        | 86.01     | 581.27   | 3.53        | 83.72     | 565.78   | 3.63        | 81.56     | 551.24   | 3.72        | 79.54     | 537.57   | 3.82        | 77.64     | 524.69   | 3.91        |
| 278-279 | 275        | 332         | 334.03       | 15.17 | 89.52     | 605.03   | 10.81       | 88.24     | 596.35   | 10.97       | 87.00     | 587.99   | 11.12       | 85.81     | 579.94   | 11.28       | 84.66     | 572.17   | 11.43       | 83.55     | 564.68   | 11.58       | 82.48     | 557.44   | 11.73       | 81.45     | 550.45   | 11.88       | 80.45     | 543.69   | 12.03       |
| 279-280 | 275        | 325         | 334.03       | 15.17 | 89.52     | 605.03   | 10.37       | 88.24     | 596.35   | 10.52       | 87.00     | 587.99   | 10.67       | 85.81     | 579.94   | 10.81       | 84.66     | 572.17   | 10.96       | 83.55     | 564.68   | 11.11       | 82.48     | 557.44   | 11.25       | 81.45     | 550.45   | 11.39       | 80.45     | 543.69   | 11.54       |
| 280-281 | 275        | 278         | 334.03       | 15.17 | 89.52     | 605.03   | 7.58        | 88.24     | 596.35   | 7.69        | 87.00     | 587.99   | 7.80        | 85.81     | 579.94   | 7.91        | 84.66     | 572.17   | 8.02        | 83.55     | 564.68   | 8.13        | 82.48     | 557.44   | 8.23        | 81.45     | 550.45   | 8.34        | 80.45     | 543.69   | 8.44        |
| 281-282 | 275        | 223         | 334.03       | 15.17 | 89.52     | 605.03   | 4.88        | 88.24     | 596.35   | 4.95        | 87.00     | 587.99   | 5.02        | 85.81     | 579.94   | 5.09        | 84.66     | 572.17   | 5.16        | 83.55     | 564.68   | 5.23        | 82.48     | 557.44   | 5.30        | 81.45     | 550.45   | 5.36        | 80.45     | 543.69   | 5.43        |
| 282-283 | 275        | 276         | 334.03       | 15.17 | 89.52     | 605.03   | 7.46        | 88.24     | 596.35   | 7.57        | 87.00     | 587.99   | 7.68        | 85.81     | 579.94   | 7.78        | 84.66     | 572.17   | 7.89        | 83.55     | 564.68   | 8.00        | 82.48     | 557.44   | 8.10        | 81.45     | 550.45   | 8.20        | 80.45     | 543.69   | 8.30        |
| 283-284 | 275        | 212         | 334.03       | 15.17 | 89.52     | 605.03   | 4.42        | 88.24     | 596.35   | 4.49        | 87.00     | 587.99   | 4.55        | 85.81     | 579.94   | 4.61        | 84.66     | 572.17   | 4.67        | 83.55     | 564.68   | 4.74        | 82.48     | 557.44   | 4.80        | 81.45     | 550.45   | 4.86        | 80.45     | 543.69   | 4.92        |
| 284-285 | 275        | 352         | 334.03       | 15.17 | 89.52     | 605.03   | 12.14       | 88.24     | 596.35   | 12.31       | 87.00     | 587.99   | 12.49       | 85.81     | 579.94   | 12.66       | 84.66     | 572.17   | 12.83       | 83.55     | 564.68   | 13.01       | 82.48     | 557.44   | 13.17       | 81.45     | 550.45   | 13.34       | 80.45     | 543.69   | 13.51       |
| 285-286 | 275        | 252         | 334.03       | 15.17 | 89.52     | 605.03   | 6.25        | 88.24     | 596.35   | 6.34        | 87.00     | 587.99   | 6.43        | 85.81     | 579.94   | 6.52        | 84.66     | 572.17   | 6.61        | 83.55     | 564.68   | 6.69        | 82.48     | 557.44   | 6.78        | 81.45     | 550.45   | 6.87        | 80.45     | 543.69   | 6.95        |
| 286-287 | 275        | 189         | 334.03       | 15.17 | 89.52     | 605.03   | 3.52        | 88.24     | 596.35   | 3.57        | 87.00     | 587.99   | 3.62        | 85.81     | 579.94   | 3.67        | 84.66     | 572.17   | 3.72        | 83.55     | 564.68   | 3.77        | 82.48     | 557.44   | 3.82        | 81.45     | 550.45   | 3.87        | 80.45     | 543.69   | 3.91        |
| 287-288 | 275        | 212         | 334.03       | 15.17 | 89.52     | 605.03   | 4.40        | 88.24     | 596.35   | 4.46        | 87.00     | 587.99   | 4.52        | 85.81     | 579.94   | 4.59        | 84.66     | 572.17   | 4.65        | 83.55     | 564.68   | 4.71        | 82.48     | 557.44   | 4.77        | 81.45     | 550.45   | 4.83        | 80.45     | 543.69   | 4.89        |
| 288-289 | 275        | 259         | 334.03       | 15.17 | 89.52     | 605.03   | 6.59        | 88.24     | 596.35   | 6.68        | 87.00     | 587.99   | 6.78        | 85.81     | 579.94   | 6.87        | 84.66     | 572.17   | 6.97        | 83.55     | 564.68   | 7.06        | 82.48     | 557.44   | 7.15        | 81.45     | 550.45   | 7.24        | 80.45     | 543.69   | 7.33        |
| 289-290 | 275        | 283         | 334.03       | 15.17 | 89.52     | 605.03   | 7.86        | 88.24     | 596.35   | 7.97        | 87.00     | 587.99   | 8.09        | 85.81     | 579.94   | 8.20        | 84.66     | 572.17   | 8.31        | 83.55     | 564.68   | 8.42        | 82.48     | 557.44   | 8.53        | 81.45     | 550.45   | 8.64        | 80.45     | 543.69   | 8.75        |
| 290-291 | 275        | 176         | 334.03       | 15.17 | 89.52     | 605.03   | 3.05        | 88.24     | 596.35   | 3.09        | 87.00     | 587.99   | 3.14        | 85.81     | 579.94   | 3.18        | 84.66     | 572.17   | 3.22        | 83.55     | 564.68   | 3.27        | 82.48     | 557.44   | 3.31        | 81.45     | 550.45   | 3.35        | 80.45     | 543.69   | 3.39        |
| 291-292 | 224        | 224         | 270.52       | 13.30 | 67.64     | 457.14   | 6.50        | 66.76     | 451.21   | 6.58        | 65.92     | 445.48   | 6.67        | 65.10     | 439.96   | 6.75        | 64.31     | 434.61   | 6.83        | 63.54     | 429.44   | 6.92        | 62.80     | 424.44   | 7.00        | 62.09     | 419.60   | 7.08        | 61.39     | 414.92   | 7.16        |