# Контрольные замеры по ПС 35/6 кВ Кольцово

## Дата: 30.06.2020 г.

### Трансформаторы

| ДН | Sном | dPxx | dQxx | Класс U | СШ(С) | dPкз | Uк | 3:00 I | 3:00 P | 3:00 Q | 3:00 CosФ | 4:00 I | 4:00 P | 4:00 Q | 4:00 CosФ | 5:00 I | 5:00 P | 5:00 Q | 5:00 CosФ | 6:00 I | 6:00 P | 6:00 Q | 6:00 CosФ | 7:00 I | 7:00 P | 7:00 Q | 7:00 CosФ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| №1 | 6,3000002 | 0,000 | 0,000 | 35 | 1С | 0,000 | 0,000 | | | | | | | | | | | | | | | | | | | | |
| | | | | 6 | 1С | 0,000 | 0,000 | 342,0 | | | | 333,0 | | | | 346,0 | | | | 345,0 | | | | 359,0 | | | |
| | | | | Положение РПН (ПБВ) / ВДТ: | | | | | | | | | | | | | | | | | | | | | | | |
| №2 | 6,3000002 | 0,000 | 0,000 | 35 | 2С | 0,000 | 0,000 | | | | | | | | | | | | | | | | | | | | |
| | | | | 6 | 2С | 0,000 | 0,000 | 308,0 | | | | 304,0 | | | | 303,0 | | | | 304,0 | | | | 310,0 | | | |
| | | | | Положение РПН (ПБВ) / ВДТ: | | | | | | | | | | | | | | | | | | | | | | | |
| Итого: | | | | 35 кВ | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | 6 кВ | | | | | | | | | | | | | | | | | | | | | | | |
| Переменные потери, МВА | | | | dPпер + djQпер | | №1 | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | №2 | | | | | | | | | | | | | | | | | | | | | |
| Нагрузка, приведенная к шинам 35 кВ, с учетом потерь, МВА | | | | Sрасч | | №1 | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | №2 | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | Сумма | | | | | | | | | | | | | | | | | | | | | |

### Шины (секции)

| Класс U | ДН | Подключение | 3:00 U | 4:00 U | 5:00 U | 6:00 U | 7:00 U |
|---|---|---|---|---|---|---|---|
| 35 | 1С | ТN1 - ВН | | | | | |
| 35 | 2С | ТN2 - ВН | | | | | |
| 6 | 1С | ТN1 - НН | 6,00 | 6,00 | 6,00 | 6,00 | 6,00 |
| 6 | 2С | ТN2 - НН | 6,00 | 6,00 | 6,00 | 6,00 | 6,00 |

### Присоединения

| ДН | Уст.АЧР1 Гц | Уст.АЧР1 сек | Уст.АЧР2 Гц | Уст.АЧР2 сек | Уст.ЧАПВ Гц | Уст.ЧАПВ сек | Уст.СОАЧР Гц | Уст.СОАЧР сек | 3:00 I | 3:00 P | 3:00 Q | 4:00 I | 4:00 P | 4:00 Q | 5:00 I | 5:00 P | 5:00 Q | 6:00 I | 6:00 P | 6:00 Q | 7:00 I | 7:00 P | 7:00 Q |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **1С 35 кВ** | | | | | | | | | | | | | | | | | | | | | | | |
| **В 35 кВ ТN1 1С** | | | | | | | | | | | | | | | | | | | | | | | |
| **СВ 35 кВ 1С-2С** | | | | | | | | | | | | | | | | | | | | | | | |
| **Н.Исетская** | | | | | | | | | | | | | | | | | | | | | | | |
| **Небаланс по шине 1С 35 кВ** | | | | | | | | | | 0,00 | 0,00 | | 0,00 | 0,00 | | 0,00 | 0,00 | | 0,00 | 0,00 | | 0,00 | 0,00 |
| **2С 35 кВ** | | | | | | | | | | | | | | | | | | | | | | | |
| **В 35 кВ ТN2 2С** | | | | | | | | | | | | | | | | | | | | | | | |
| **СВ 35 кВ 2С-1С** | | | | | | | | | | | | | | | | | | | | | | | |
| **Родник** | | | | | | | | | | | | | | | | | | | | | | | |
| **Небаланс по шине 2С 35 кВ** | | | | | | | | | | 0,00 | 0,00 | | 0,00 | 0,00 | | 0,00 | 0,00 | | 0,00 | 0,00 | | 0,00 | 0,00 |
| **Небаланс по шинам 35 кВ** | | | | | | | | | | **0,00** | **0,00** | | **0,00** | **0,00** | | **0,00** | **0,00** | | **0,00** | **0,00** | | **0,00** | **0,00** |
| **1С 6 кВ** | | | | | | | | | | | | | | | | | | | | | | | |
| **В 6 кВ ТN1 1С** | | | | | | | | | 0,0 | 0,00 | 0,00 | 0,0 | 0,00 | 0,00 | 0,0 | 0,00 | 0,00 | 0,0 | 0,00 | 0,00 | 0,0 | 0,00 | 0,00 |
| **СВ 6 кВ 1С-2С** | | | | | | | | | | | | | | | | | | | | | | | |
| **ТП 10 ф.1 яч.9** | | | | | | | | | 4,0 | | | 4,0 | | | 4,0 | | | 4,0 | | | 4,0 | | |
| **ТП 26 ф.1 яч.5** | | | | | | | | | 23,2 | 200,88 | 38,88 | 12,0 | 193,32 | 38,16 | 23,1 | 196,92 | 38,88 | 23,3 | 196,20 | 37,80 | 25,9 | 203,76 | 40,32 |
| **ТП 14 ф.1 яч.4** | | | | | | | | | 3,3 | 31,68 | 23,40 | 3,6 | 31,32 | 23,76 | 3,7 | 32,76 | 23,40 | 4,1 | 34,20 | 25,20 | 3,6 | 33,48 | 23,04 |
| **ТП 22 ф.1 яч.1** | | | | | | | | | 4,5 | 49,68 | 15,48 | 4,3 | 48,60 | 15,84 | 5,6 | 50,76 | 15,12 | 4,5 | 47,88 | 15,48 | 4,4 | 46,44 | 14,76 |
| **ТП-11, ф.1 яч.3** | | | | | | | | | 16,0 | | | 16,0 | | | 15,0 | | | 16,0 | | | 17,0 | | |
| **ТП 21 яч.33** | | | | | | | | | 27,3 | 217,44 | 187,20 | 27,2 | 217,80 | 187,20 | 27,1 | 217,80 | 187,92 | 27,1 | 218,52 | 186,84 | 27,3 | 219,24 | 185,76 |
| **ЗРУ 6кВ №2 яч.3** | | | | | | | | | | | | | | | | | | | | | | | |
| **ТП 70002 ф.10** | | | | | | | | | 9,8 | 104,40 | 10,08 | 10,0 | 103,32 | 10,62 | 9,7 | 100,44 | 10,98 | 9,7 | 101,70 | 10,26 | 11,4 | 109,80 | 10,08 |
| **ТП 75001 ф.12** | | | | | | | | | 163,0 | 2044,80 | 508,32 | 163,0 | 2028,24 | 507,60 | 163,0 | 2028,96 | 514,80 | 163,0 | 2029,68 | 518,40 | 163,0 | 2050,56 | 515,52 |
| **ТП 3 яч.9** | | | | | | | | | 10,0 | | | 10,0 | | | 11,0 | | | 11,0 | | | 20,0 | | |
| **ТП 9 ф.1 яч.4** | | | | | | | | | 15,0 | | | 15,0 | | | 15,0 | | | 15,0 | | | 15,0 | | |
| **ТП 7 ф.2** | | | | | | | | | 21,0 | | | 22,0 | | | 22,0 | | | 22,0 | | | 22,0 | | |
| **ТП 39ф.5** | | | | | | | | | 0,0 | | | 0,0 | | | 0,0 | | | 0,0 | | | 0,0 | | |
| **ТП 1 ф.8** | | | | | | | | | 22,0 | | | 22,0 | | | 22,0 | | | 22,0 | | | 22,0 | | |
| **ТП5 яч.10** | | | | | | | | | 24,0 | | | 24,0 | | | 24,0 | | | 24,0 | | | 24,0 | | |
| **Небаланс по шине 1С 6 кВ** | | | | | | | | | | 0,00 | 0,00 | | 0,00 | 0,00 | | 0,00 | 0,00 | | 0,00 | 0,00 | | 0,00 | 0,00 |
| **2С 6 кВ** | | | | | | | | | | | | | | | | | | | | | | | |
| **В 6 кВ ТN2 2С** | | | | | | | | | 0,0 | 0,00 | 0,00 | 0,0 | 0,00 | 0,00 | 0,0 | 0,00 | 0,00 | 0,0 | 0,00 | 0,00 | 0,0 | 0,00 | 0,00 |
| **СВ 6 кВ 2С-1С** | | | | | | | | | | | | | | | | | | | | | | | |
| **ТП 26 ф.2 яч.21** | | | | | | | | | 0,0 | | | 0,0 | | | 0,0 | | | 0,0 | | | 0,0 | | |
| **ТП 10 ф.2 яч.20** | | | | | | | | | 0,0 | | | 0,0 | | | 0,0 | | | 0,0 | | | 0,0 | | |
| **ТП 20 яч.19** | | | | | | | | | 19,1 | 174,96 | 103,32 | 19,1 | 175,32 | 103,32 | 19,2 | 176,94 | 103,50 | 19,4 | 178,20 | 103,32 | 19,5 | 179,64 | 103,14 |
| **ТП 14 ф.2 яч.26** | | | | | | | | | 1,3 | 12,24 | 5,22 | 1,4 | 12,42 | 4,86 | 1,3 | 12,42 | 5,04 | 1,2 | 12,42 | 5,04 | 1,4 | 12,78 | 4,32 |
| **ТП 2 яч.18** | | | | | | | | | 23,0 | | | 23,0 | | | 23,0 | | | 24,0 | | | 25,0 | | |
| **ТП 22 ф.2 яч.27** | | | | | | | | | 4,9 | 47,88 | 14,04 | 5,2 | 49,68 | 14,76 | 5,0 | 49,32 | 15,12 | 5,0 | 48,96 | 15,48 | 5,2 | 50,40 | 14,04 |
| **ТП 4 яч.19** | | | | | | | | | 22,0 | | | 22,0 | | | 22,0 | | | 22,0 | | | 22,0 | | |
| **ТП 6 яч.20** | | | | | | | | | 15,0 | | | 15,0 | | | 15,0 | | | 15,0 | | | 15,0 | | |
| **ТП 9 ф.2 яч.25** | | | | | | | | | 35,0 | | | 35,0 | | | 35,0 | | | 35,0 | | | 35,0 | | |
| **ТП 75001 ф.22** | | | | | | | | | 132,0 | 2292,48 | 599,76 | 132,0 | 2311,92 | 590,40 | 132,0 | 2343,60 | 593,28 | 132,0 | 2331,36 | 601,20 | 132,0 | 2344,32 | 594,72 |
| **ТП 12 ф.18** | | | | | | | | | 14,4 | 111,96 | 47,16 | 10,0 | 117,36 | 48,96 | 9,2 | 113,76 | 46,44 | 9,5 | 108,36 | 45,72 | 14,3 | 109,08 | 47,16 |
| **ТП 13 ф.30** | | | | | | | | | 0,0 | | | 0,0 | | | 0,0 | | | 0,0 | | | 0,0 | | |
| **ТП 36ф.23** | | | | | | | | | 22,0 | | | 22,0 | | | 22,0 | | | 22,0 | | | 22,0 | | |
| **ТП 11 ф.26** | | | | | | | | | 20,0 | | | 20,0 | | | 20,0 | | | 20,0 | | | 20,0 | | |
| **Небаланс по шине 2С 6 кВ** | | | | | | | | | | 0,00 | 0,00 | | 0,00 | 0,00 | | 0,00 | 0,00 | | 0,00 | 0,00 | | 0,00 | 0,00 |
| **Небаланс по шинам 6 кВ** | | | | | | | | | | **0,00** | **0,00** | | **0,00** | **0,00** | | **0,00** | **0,00** | | **0,00** | **0,00** | | **0,00** | **0,00** |

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| **Замер провёл:** | | | | | |

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| I | P | Q | CosΦ | I | P | Q | CosΦ | I | P | Q | CosΦ | I | P | Q | CosΦ | I | P | Q | CosΦ | I | P | Q | CosΦ | I | P | Q | CosΦ |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 366,0 | | | | 342,0 | | | | 371,0 | | | | 360,0 | | | | 372,0 | | | | 360,0 | | | | 373,0 | | | |
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| 309,0 | | | | 317,0 | | | | 315,0 | | | | 314,0 | | | | 311,0 | | | | 316,0 | | | | 315,0 | | | |
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| | **0,00** | **0,00** | | **0,00** | **0,00** | | **0,00** | **0,00** | | **0,00** | **0,00** | | **0,00** | **0,00** | | **0,00** | **0,00** | | **0,00** | **0,00** |
| 0,0 | 0,00 | 0,00 | 0,0 | 0,00 | 0,00 | 0,0 | 0,00 | 0,00 | 0,0 | 0,00 | 0,00 | 0,0 | 0,00 | 0,00 | 0,0 | 0,00 | 0,00 | 0,0 | 0,00 | 0,00 |
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| 4,0 | | | 4,0 | | | 4,0 | | | 4,0 | | | 4,0 | | | 4,0 | | | 4,0 | | |
| 24,8 | 213,84 | 40,68 | 13,6 | 209,52 | 39,96 | 24,7 | 221,04 | 44,64 | 13,9 | 205,56 | 39,60 | 24,8 | 223,20 | 43,92 | 13,4 | 204,12 | 38,16 | 24,9 | 215,64 | 41,40 |
| 4,0 | 34,56 | 24,12 | 2,7 | 32,04 | 20,52 | 2,8 | 31,68 | 22,32 | 3,1 | 25,92 | 17,28 | 2,8 | 24,84 | 17,64 | 4,6 | 26,64 | 19,44 | 2,6 | 29,16 | 21,60 |
| 5,2 | 51,48 | 16,20 | 8,3 | 76,68 | 18,00 | 8,4 | 77,40 | 17,64 | 8,8 | 80,64 | 17,64 | 8,2 | 77,76 | 17,64 | 6,7 | 75,60 | 18,00 | 7,7 | 73,08 | 17,64 |
| 20,0 | | | 20,0 | | | 21,0 | | | 20,0 | | | 22,0 | | | 22,0 | | | 23,0 | | |
| 27,7 | 221,76 | 187,20 | 27,6 | 222,48 | 185,76 | 27,2 | 221,04 | 184,32 | 27,1 | 217,80 | 183,60 | 27,1 | 217,08 | 183,60 | 27,0 | 217,80 | 185,04 | 27,0 | 217,08 | 183,96 |
| | | | | | | | | | | | | | | | | | | | | |
| 12,1 | 131,94 | 10,62 | 16,5 | 164,16 | 8,10 | 15,5 | 157,68 | 5,40 | 14,6 | 156,78 | 3,78 | 15,2 | 154,44 | 5,40 | 14,2 | 147,96 | 6,12 | 15,3 | 151,02 | 6,48 |
| 163,0 | 2156,40 | 504,00 | 163,0 | 2283,84 | 493,92 | 163,0 | 2223,36 | 462,24 | 163,0 | 2108,88 | 455,04 | 163,0 | 2116,80 | 461,52 | 163,0 | 2099,52 | 465,84 | 163,0 | 2077,20 | 468,72 |
| 20,0 | | | 20,0 | | | 20,0 | | | 20,0 | | | 20,0 | | | 20,0 | | | 20,0 | | |
| 15,0 | | | 15,0 | | | 15,0 | | | 15,0 | | | 15,0 | | | 15,0 | | | 15,0 | | |
| 21,0 | | | 21,0 | | | 20,0 | | | 20,0 | | | 20,0 | | | 20,0 | | | 20,0 | | |
| 0,0 | | | 0,0 | | | 0,0 | | | 0,0 | | | 0,0 | | | 0,0 | | | 0,0 | | |
| 22,0 | | | 22,0 | | | 22,0 | | | 22,0 | | | 22,0 | | | 22,0 | | | 22,0 | | |
| 28,0 | | | 28,0 | | | 28,0 | | | 28,0 | | | 28,0 | | | 28,0 | | | 28,0 | | |
| | 0,00 | 0,00 | | 0,00 | 0,00 | | 0,00 | 0,00 | | 0,00 | 0,00 | | 0,00 | 0,00 | | 0,00 | 0,00 | | 0,00 | 0,00 |
| 0,0 | 0,00 | 0,00 | 0,0 | 0,00 | 0,00 | 0,0 | 0,00 | 0,00 | 0,0 | 0,00 | 0,00 | 0,0 | 0,00 | 0,00 | 0,0 | 0,00 | 0,00 | 0,0 | 0,00 | 0,00 |
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| 0,0 | | | 0,0 | | | 0,0 | | | 0,0 | | | 0,0 | | | 0,0 | | | 0,0 | | |
| 19,6 | 180,00 | 102,24 | 19,5 | 179,10 | 101,52 | 19,1 | 177,84 | 101,88 | 19,1 | 176,22 | 100,62 | 19,2 | 175,86 | 99,72 | 19,3 | 177,12 | 101,34 | 19,1 | 176,40 | 100,98 |
| 1,2 | 12,42 | 4,32 | 1,5 | 13,68 | 5,40 | 1,8 | 14,58 | 7,38 | 1,5 | 14,40 | 7,20 | 1,4 | 13,86 | 7,20 | 1,5 | 13,86 | 7,20 | 1,3 | 12,96 | 5,22 |
| 25,0 | | | 25,0 | | | 25,0 | | | 25,0 | | | 25,0 | | | 24,0 | | | 24,0 | | |
| 8,5 | 79,92 | 15,48 | 14,8 | 119,16 | 18,00 | 9,3 | 113,40 | 21,60 | 9,0 | 104,04 | 23,04 | 9,9 | 100,80 | 18,00 | 11,0 | 97,56 | 20,88 | 12,4 | 101,88 | 13,32 |
| 22,0 | | | 22,0 | | | 22,0 | | | 22,0 | | | 22,0 | | | 22,0 | | | 22,0 | | |
| 15,0 | | | 15,0 | | | 15,0 | | | 15,0 | | | 15,0 | | | 15,0 | | | 15,0 | | |
| 35,0 | | | 35,0 | | | 35,0 | | | 35,0 | | | 35,0 | | | 35,0 | | | 35,0 | | |
| 132,0 | 2365,92 | 570,24 | 132,0 | 2441,52 | 563,76 | 132,0 | 2399,76 | 593,28 | 132,0 | 2354,40 | 599,04 | 132,0 | 2370,24 | 596,88 | 132,0 | 2341,44 | 597,60 | 132,0 | 2348,64 | 598,32 |
| 8,2 | 122,04 | 55,44 | 9,6 | 121,68 | 57,60 | 14,3 | 119,88 | 56,52 | 13,6 | 116,28 | 57,24 | 9,7 | 122,40 | 59,04 | 14,9 | 123,84 | 57,60 | 13,4 | 123,48 | 60,48 |
| 0,0 | | | 0,0 | | | 0,0 | | | 0,0 | | | 0,0 | | | 0,0 | | | 0,0 | | |
| 22,0 | | | 22,0 | | | 22,0 | | | 22,0 | | | 22,0 | | | 22,0 | | | 22,0 | | |
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| | 0,00 | 0,00 | | 0,00 | 0,00 | | 0,00 | 0,00 | | 0,00 | 0,00 | | 0,00 | 0,00 | | 0,00 | 0,00 | | 0,00 | 0,00 |
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| I | P | Q | CosФ | I | P | Q | CosФ | I | P | Q | CosФ | I | P | Q | CosФ | I | P | Q | CosФ | I | P | Q | CosФ | I | P | Q | CosФ |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 363,0 | | | | 372,0 | | | | 373,0 | | | | 361,0 | | | | 369,0 | | | | 368,0 | | | | 356,0 | | | |
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| 313,0 | | | | 314,0 | | | | 312,0 | | | | 313,0 | | | | 314,0 | | | | 316,0 | | | | 310,0 | | | |
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| I | P | Q | I | P | Q | I | P | Q | I | P | Q | I | P | Q | I | P | Q | I | P | Q |
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| 13,4 | 203,76 | 39,96 | 24,8 | 219,24 | 42,48 | 25,1 | 208,44 | 38,16 | 14,6 | 216,00 | 38,52 | 26,4 | 239,40 | 44,64 | 26,1 | 225,72 | 42,48 | 16,0 | 227,16 | 45,00 |
| 2,4 | 25,56 | 18,72 | 2,8 | 24,84 | 17,64 | 4,1 | 36,36 | 25,92 | 4,2 | 37,80 | 24,12 | 4,1 | 37,44 | 24,48 | 4,2 | 37,08 | 24,48 | 4,2 | 35,64 | 26,28 |
| 7,6 | 71,64 | 17,64 | 6,2 | 69,48 | 17,28 | 6,7 | 70,92 | 17,64 | 6,8 | 69,84 | 16,92 | 6,4 | 60,84 | 15,84 | 6,0 | 61,56 | 16,56 | 6,0 | 60,12 | 16,56 |
| 25,0 | | | 25,0 | | | 25,0 | | | 23,0 | | | 22,0 | | | 22,0 | | | 19,0 | | |
| 26,7 | 214,20 | 182,52 | 26,7 | 213,48 | 183,24 | 27,3 | 217,80 | 185,76 | 27,4 | 219,24 | 186,12 | 27,7 | 221,40 | 186,84 | 27,9 | 223,56 | 190,80 | 27,5 | 221,76 | 191,16 |
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| 15,6 | 151,74 | 4,14 | 14,3 | 154,08 | 4,68 | 13,2 | 151,38 | 5,76 | 13,2 | 129,78 | 9,90 | 10,6 | 118,26 | 10,98 | 10,2 | 118,26 | 11,16 | 12,4 | 117,72 | 11,70 |
| 163,0 | 2052,72 | 473,04 | 163,0 | 2121,84 | 454,32 | 163,0 | 2209,68 | 480,24 | 163,0 | 2285,28 | 493,20 | 163,0 | 2221,92 | 497,52 | 163,0 | 2171,52 | 498,96 | 163,0 | 2166,48 | 501,84 |
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| 19,3 | 176,04 | 100,62 | 19,2 | 178,74 | 101,52 | 19,6 | 179,46 | 102,96 | 19,7 | 180,54 | 104,04 | 19,5 | 180,00 | 103,68 | 19,8 | 181,44 | 104,40 | 19,5 | 179,82 | 102,06 |
| 1,5 | 13,32 | 6,66 | 1,6 | 14,76 | 5,94 | 1,5 | 13,50 | 5,04 | 1,5 | 13,68 | 5,04 | 1,4 | 13,68 | 4,86 | 1,4 | 13,14 | 4,68 | 1,3 | 11,88 | 3,60 |
| 24,0 | | | 24,0 | | | 24,0 | | | 24,0 | | | 24,0 | | | 24,0 | | | 24,0 | | |
| 9,5 | 97,56 | 19,80 | 8,6 | 101,52 | 20,16 | 10,0 | 96,84 | 20,52 | 7,3 | 78,84 | 25,20 | 8,0 | 66,24 | 15,48 | #ДЕЛ/0! | 64,08 | 15,48 | 5,3 | 51,84 | 13,32 |
| 22,0 | | | 22,0 | | | 22,0 | | | 22,0 | | | 22,0 | | | 22,0 | | | 22,0 | | |
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| 132,0 | 2338,56 | 604,08 | 132,0 | 2345,76 | 602,64 | 132,0 | 2414,88 | 622,08 | 132,0 | 2460,24 | 643,68 | 132,0 | 2435,04 | 619,20 | 132,0 | 2368,80 | 593,28 | 132,0 | 2296,80 | 560,16 |
| 13,2 | 119,16 | 59,04 | 14,2 | 122,76 | 58,32 | 11,3 | 135,00 | 59,04 | 14,9 | 137,88 | 60,84 | 16,0 | 142,20 | 59,04 | 16,6 | 150,48 | 63,36 | 15,4 | 150,48 | 62,28 |
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| 363,0 | | | | 360,0 | | | | 351,0 | | | | 351,0 | | | | 359,0 | | | |
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| 4,0 | | | 4,0 | | | 4,0 | | | 4,0 | | | 4,0 | | |
| 25,1 | 227,52 | 46,44 | 24,3 | 199,80 | 39,60 | 12,8 | 199,80 | 40,68 | 13,0 | 202,68 | 40,32 | 23,2 | 198,00 | 39,24 |
| 4,5 | 37,80 | 26,64 | 4,0 | 36,36 | 27,00 | 4,5 | 34,20 | 27,00 | #ДЕЛ/0! | 34,56 | 28,08 | 4,0 | 38,88 | 31,68 |
| 5,3 | 56,16 | 16,20 | 5,0 | 55,80 | 15,84 | 5,9 | 55,44 | 16,56 | 6,6 | 54,36 | 16,20 | 5,8 | 53,28 | 16,20 |
| 19,0 | | | 18,0 | | | 19,0 | | | 17,0 | | | 17,0 | | |
| 27,4 | 219,96 | 192,24 | 27,4 | 218,88 | 191,52 | 27,4 | 218,52 | 193,68 | 27,4 | 218,88 | 195,12 | 27,2 | 217,80 | 190,80 |
| | | | | | | | | | | | | | | |
| 11,1 | 118,08 | 12,96 | 10,5 | 112,68 | 11,16 | 10,0 | 109,08 | 12,42 | 11,0 | 107,28 | 11,70 | 10,1 | 105,12 | 10,62 |
| 163,0 | 2149,92 | 515,52 | 163,0 | 2065,68 | 509,04 | 163,0 | 2031,84 | 509,04 | 163,0 | 2041,92 | 501,84 | 163,0 | 2028,24 | 483,12 |
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| 19,4 | 179,46 | 102,42 | 19,3 | 178,20 | 102,42 | 19,4 | 178,38 | 102,78 | 19,3 | 178,92 | 103,50 | 19,2 | 178,92 | 104,04 |
| 1,1 | 11,70 | 3,60 | 1,2 | 11,88 | 3,96 | 1,6 | 12,78 | 4,14 | 1,3 | 11,70 | 4,32 | 1,2 | 11,88 | 4,32 |
| 24,0 | | | 23,0 | | | 23,0 | | | 23,0 | | | 23,0 | | |
| 5,2 | 52,20 | 13,68 | 4,9 | 50,76 | 12,96 | 4,8 | 49,68 | 14,04 | 4,9 | 50,40 | 14,76 | 5,4 | 51,48 | 15,12 |
| 22,0 | | | 22,0 | | | 22,0 | | | 22,0 | | | 22,0 | | |
| 15,0 | | | 15,0 | | | 15,0 | | | 15,0 | | | 15,0 | | |
| 35,0 | | | 35,0 | | | 35,0 | | | 35,0 | | | 35,0 | | |
| 132,0 | 2314,80 | 573,84 | 132,0 | 2260,80 | 550,80 | 132,0 | 2192,40 | 544,32 | 132,0 | 2151,36 | 555,12 | 132,0 | 2153,52 | 605,52 |
| 11,8 | 147,96 | 61,56 | 16,3 | 149,40 | 63,72 | 12,8 | 143,64 | 59,76 | 14,6 | 138,60 | 59,40 | 10,2 | 132,84 | 58,32 |
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| 20,0 | | | 20,0 | | | 20,0 | | | 20,0 | | | 20,0 | | |
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