

МЕСЯЧНЫЙ ПРОТОКОЛ УЧЕТА ТЕПЛОВОЙ ЭНЕРГИИ И ТЕПЛОНОСИТЕЛЯ ЗА 12 мес 25 г.

Название потребителя _____ Абонент _____
 Адрес потребителя Маршала Жукова 1А Телефон _____
 Ответственное лицо _____

Вычислитель ТС-201-2-2-1 Сер.ном. 32466 Расход под 0.100.. 25.000 м3/ч Ду 50 мм
 Отчетное число месяца 11 Отчетное время 00:00 Расход обр 0.100.. 25.000 м3/ч Ду 50 мм
 Расход п ротор 10.00 л/имп Ду 20 мм

| Дата | Qтеп [Гкал] | tпод [оС] | tобр [оС] | Gпод [тонн] | Gобр [тонн] | Gп [тонн] | Gпод-Gобр [тонн] | рпод [ат] | робр [ат] | Tнар [час] |
|--------------|------------------|--------------|--------------|------------------|------------------|--------------|---------------------|--------------|--------------|---------------|
| 11.12 | 4.83176 | 76.0 | 58.4 | 274.682 | 284.795 | 0.00 | -10.113 | < | < | 24.00 |
| 12.12 | 4.48907 | 76.2 | 57.5 | 240.964 | 249.770 | 0.00 | -8.806 | < | < | 24.00 |
| 13.12 | 5.44581 | 78.8 | 60.3 | 294.920 | 305.631 | 0.00 | -10.711 | < | < | 24.00 |
| 14.12 | 5.51061 | 79.0 | 60.3 | 293.981 | 304.595 | 0.00 | -10.614 | < | < | 24.00 |
| 15.12 | 5.48791 | 79.0 | 60.2 | 290.754 | 301.244 | 0.00 | -10.490 | < | < | 24.00 |
| 16.12 | 5.41097 | 78.5 | 60.3 | 296.193 | 306.666 | 0.00 | -10.473 | < | < | 24.00 |
| 17.12 | 5.10757 | 76.9 | 58.8 | 281.717 | 291.607 | 0.00 | -9.890 | < | < | 24.00 |
| 18.12 | 5.27207 | 77.0 | 59.5 | 301.127 | 311.581 | 0.00 | -10.454 | < | < | 24.00 |
| 19.12 | 5.25047 | 77.0 | 59.3 | 297.413 | 307.630 | 0.00 | -10.217 | < | < | 24.00 |
| 20.12 | 5.28124 | 77.0 | 59.5 | 301.055 | 311.229 | 0.00 | -10.174 | < | < | 24.00 |
| 21.12 | 5.35406 | 77.0 | 59.3 | 301.927 | 312.079 | 0.00 | -10.152 | < | < | 24.00 |
| 22.12 | 5.24868 | 77.3 | 59.5 | 294.971 | 304.550 | 0.00 | -9.579 | < | < | 24.00 |
| 23.12 | 6.70550 | 89.2 | 67.0 | 301.338 | 312.064 | 0.00 | -10.726 | < | < | 24.00 |
| 24.12 | 6.56960 | 89.4 | 66.4 | 285.521 | 295.391 | 0.00 | -9.870 | < | < | 24.00 |
| 25.12 | 5.25215 | 76.0 | 57.8 | 288.979 | 297.323 | 0.00 | -8.344 | < | < | 24.00 |
| 26.12 | 5.35704 | 77.4 | 60.0 | 307.429 | 316.240 | 0.00 | -8.811 | < | < | 24.00 |
| 27.12 | 5.41377 | 78.1 | 60.7 | 311.507 | 319.086 | 0.00 | -7.579 | < | < | 24.00 |
| 28.12 | 5.52160 | 79.0 | 61.2 | 310.896 | 318.963 | 0.00 | -8.067 | < | < | 24.00 |
| 29.12 | 5.50595 | 79.2 | 62.0 | 321.199 | 329.392 | 0.00 | -8.193 | < | < | 24.00 |
| 30.12 | 5.75698 | 79.2 | 62.1 | 338.517 | 346.980 | 0.00 | -8.463 | < | < | 24.00 |
| 31.12 | 8.53107 | 81.9 | 56.9 | 341.490 | 348.994 | 0.00 | -7.504 | < | < | 24.00 |
| 01.01 | 8.92379 | 86.1 | 59.3 | 333.251 | 340.638 | 0.00 | -7.387 | < | < | 24.00 |
| 02.01 | 9.03097 | 87.0 | 59.4 | 326.754 | 334.680 | 0.00 | -7.926 | < | < | 24.00 |
| 03.01 | 8.07105 | 80.3 | 55.6 | 327.483 | 334.605 | 0.00 | -7.122 | < | < | 24.00 |
| 04.01 | 7.21438 | 77.4 | 55.2 | 326.437 | 333.505 | 0.00 | -7.068 | < | < | 24.00 |
| 05.01 | 5.47841 | 79.0 | 62.7 | 336.257 | 343.186 | 0.00 | -6.929 | < | < | 24.00 |
| 06.01 | 5.69840 | 81.0 | 64.2 | 338.887 | 345.911 | 0.00 | -7.024 | < | < | 24.00 |
| 07.01 | 5.33196 | 79.1 | 63.3 | 335.586 | 342.703 | 0.00 | -7.117 | < | < | 24.00 |
| 08.01 | 5.60576 | 80.5 | 63.8 | 335.831 | 343.580 | 0.00 | -7.749 | < | < | 24.00 |
| 09.01 | 6.05153 | 84.3 | 65.1 | 315.498 | 324.488 | 0.00 | -8.990 | < | < | 24.00 |
| 10.01 | 5.50087 | 79.8 | 63.1 | 329.417 | 337.891 | 0.00 | -8.474 | < | < | 24.00 |
| 11.01 | 5.64565 | 80.5 | 63.3 | 327.034 | 335.169 | 0.00 | -8.135 | < | < | 24.00 |
| 12.01 | 5.24689 | 77.6 | 60.8 | 313.030 | 319.792 | 0.00 | -6.762 | < | < | 24.00 |
| 13.01 | 6.16347 | 85.8 | 67.4 | 334.812 | 343.204 | 0.00 | -8.392 | < | < | 24.00 |
| 14.01 | 5.97461 | 84.0 | 65.9 | 330.634 | 338.552 | 0.00 | -7.918 | < | < | 24.00 |
| 15.01 | 6.22227 | 86.5 | 67.7 | 331.638 | 339.486 | 0.00 | -7.848 | < | < | 24.00 |
| 16.01 | 7.05087 | 92.8 | 70.5 | 316.557 | 325.117 | 0.00 | -8.560 | < | < | 24.00 |
| Итого | 220.51476 | 80.7' | 61.5' | 11535.686 | 11858.317 | 0.00 | -322.631 | | | 888.00 |

Тотч.пер. = Tнар + Tmin + Tmax + Tdelta_t<мин + Тэл.пит + Tпроч.ав.
 888.00ч = 888.00ч + 0.00ч + 0.00ч + 0.00ч + 0.00ч + 0.00ч

| Т/С Отопление нарастающим итогом | Qтеп [Гкал] | Gпод [тонн] | Gобр [тонн] | Gп [тонн] | Tнар [час] |
|-------------------------------------|----------------|----------------|----------------|--------------|---------------|
| 17-01-26 00:00 | 964.56977 | 53512.524 | 54908.133 | 0.00 | 7620.12 |
| 11-12-25 00:00 | 744.05501 | 41976.838 | 43049.816 | 0.00 | 6732.12 |

Расшифровка ошибок:
 (<) параметр < min
 (>) параметр > max
 (X) обрыв датчика
 (T) delta_t < min
 (R) перезапуск

| | | | | | | |
|-------|-----------|-----------|-----------|------|--------|--|
| Итого | 220.51476 | 11535.686 | 11858.317 | 0.00 | 888.00 | (С) коррекц. часов (#) электропитание |
|-------|-----------|-----------|-----------|------|--------|--|

Тобщ = 888.00ч

Обновление 2.49 16-02-25 12ч НС-А-2.49 / НС-А-2.36 Q=G1 (Н1-Н2)

19.01.26 Подпись _____

МЕСЯЧНЫЙ ПРОТОКОЛ УЧЕТА ТЕПЛОВОЙ ЭНЕРГИИ И ТЕПЛОНОСИТЕЛЯ ЗА 12 мес 25 г.

Название потребителя _____ Абонент _____
 Адрес потребителя Маршала Жукова 23 Телефон _____
 Ответственное лицо _____

Вычислитель ТС-201-2-2-1-1 Сер.ном. 240750 Расход под 0.320.. 80.000 м3/ч Ду 100 мм
 Отчетное число месяца 11 Отчетное время 00:00 Расход обр 0.320.. 80.000 м3/ч Ду 100 мм
 Расход п ротор 10.00 л/имп Ду 25 мм

| Дата | Qтеп [Гкал] | tпод [оС] | tобр [оС] | Gпод [тонн] | Gобр [тонн] | Gп [тонн] | Gпод-Gобр [тонн] | рпод [ат] | робр [ат] | Tнар [час] |
|--------------|-------------------|--------------|--------------|------------------|------------------|--------------|---------------------|--------------|--------------|---------------|
| 11.12 | 22.51429 | 77.5 | 52.9 | 924.521 | 923.977 | 0.20 | 0.544 | 7.4 | 5.4 | 24.00 |
| 12.12 | 22.18255 | 77.9 | 53.0 | 909.256 | 908.755 | 0.19 | 0.501 | 7.5 | 5.4 | 24.00 |
| 13.12 | 28.94228 | 84.5 | 57.0 | 1049.592 | 1049.108 | 0.13 | 0.484 | 7.2 | 5.4 | 24.00 |
| 14.12 | 30.18913 | 85.3 | 58.1 | 1109.179 | 1108.628 | 0.29 | 0.551 | 7.2 | 5.4 | 24.00 |
| 15.12 | 30.46152 | 87.2 | 58.2 | 1057.749 | 1057.220 | 0.16 | 0.529 | 7.2 | 5.4 | 24.00 |
| 16.12 | 26.14111 | 82.8 | 53.8 | 901.731 | 901.228 | 0.27 | 0.503 | 7.5 | 5.4 | 24.00 |
| 17.12 | 23.07640 | 79.4 | 51.9 | 847.711 | 847.160 | 0.22 | 0.551 | 7.7 | 5.4 | 24.00 |
| 18.12 | 24.13629 | 78.0 | 53.5 | 984.432 | 983.819 | 0.20 | 0.613 | 7.4 | 5.4 | 24.00 |
| 19.12 | 24.07312 | 76.7 | 53.7 | 1057.395 | 1056.731 | 0.44 | 0.664 | 7.1 | 5.5 | 24.00 |
| 20.12 | 24.38954 | 76.2 | 53.4 | 1085.842 | 1085.067 | 0.13 | 0.775 | 6.9 | 5.4 | 24.00 |
| 21.12 | 24.27949 | 78.9 | 53.1 | 944.522 | 943.841 | 0.17 | 0.681 | 7.1 | 5.4 | 24.00 |
| 22.12 | 24.67348 | 79.2 | 53.9 | 994.527 | 993.805 | 0.13 | 0.722 | 7.2 | 5.4 | 24.00 |
| 23.12 | 32.98022 | 87.0 | 61.3 | 1277.463 | 1276.614 | 0.21 | 0.849 | 7.4 | 5.5 | 24.00 |
| 24.12 | 34.10135 | 90.2 | 61.8 | 1203.155 | 1202.381 | 0.15 | 0.774 | 7.5 | 5.5 | 24.00 |
| 25.12 | 28.42441 | 84.7 | 54.9 | 964.298 | 963.726 | 0.24 | 0.572 | 7.5 | 5.5 | 24.00 |
| 26.12 | 25.16953 | 79.2 | 53.3 | 980.648 | 980.052 | 0.19 | 0.596 | 7.6 | 5.4 | 24.00 |
| 27.12 | 25.78084 | 78.8 | 54.3 | 1050.141 | 1049.493 | 0.18 | 0.648 | 7.5 | 5.4 | 24.00 |
| 28.12 | 26.81281 | 82.1 | 54.8 | 984.172 | 983.607 | 0.15 | 0.565 | 7.5 | 5.4 | 24.00 |
| 29.12 | 27.40864 | 81.4 | 56.0 | 1082.131 | 1081.548 | 0.19 | 0.583 | 7.5 | 5.5 | 24.00 |
| 30.12 | 28.27514 | 82.0 | 57.0 | 1133.754 | 1133.105 | 0.17 | 0.649 | 7.5 | 5.4 | 24.00 |
| 31.12 | 30.33969 | 84.1 | 58.6 | 1191.093 | 1190.383 | 0.12 | 0.710 | 7.4 | 5.5 | 24.00 |
| 01.01 | 33.58140 | 92.6 | 61.8 | 1097.832 | 1097.260 | 0.15 | 0.572 | 7.6 | 5.5 | 24.00 |
| 02.01 | 34.37145 | 94.1 | 63.4 | 1121.321 | 1120.737 | 0.17 | 0.584 | 7.6 | 5.5 | 24.00 |
| 03.01 | 28.49255 | 85.8 | 57.1 | 993.035 | 992.479 | 0.22 | 0.556 | 7.6 | 5.5 | 24.00 |
| 04.01 | 26.60540 | 79.8 | 56.2 | 1123.610 | 1122.848 | 0.18 | 0.762 | 7.5 | 5.5 | 24.00 |
| 05.01 | 27.91594 | 80.7 | 57.6 | 1209.026 | 1208.116 | 0.15 | 0.910 | 7.5 | 5.5 | 24.00 |
| 06.01 | 29.82564 | 84.9 | 58.0 | 1108.307 | 1107.544 | 0.17 | 0.763 | 7.5 | 5.5 | 24.00 |
| 07.01 | 29.75158 | 83.4 | 58.0 | 1169.856 | 1168.920 | 0.20 | 0.936 | 7.5 | 5.5 | 24.00 |
| 08.01 | 30.71914 | 83.6 | 59.0 | 1244.761 | 1243.713 | 0.19 | 1.048 | 7.5 | 5.5 | 24.00 |
| 09.01 | 32.57575 | 88.6 | 60.3 | 1154.785 | 1153.876 | 0.41 | 0.909 | 7.6 | 5.5 | 24.00 |
| 10.01 | 28.94719 | 83.6 | 56.5 | 1070.702 | 1069.799 | 0.17 | 0.903 | 7.6 | 5.5 | 24.00 |
| 11.01 | 30.44001 | 83.5 | 58.6 | 1225.146 | 1224.057 | 0.18 | 1.089 | 7.5 | 5.5 | 24.00 |
| 12.01 | 29.18623 | 82.6 | 56.8 | 1131.693 | 1130.724 | 0.17 | 0.969 | 7.6 | 5.5 | 24.00 |
| 13.01 | 32.12690 | 88.3 | 58.7 | 1100.293 | 1099.324 | 0.09 | 0.969 | 7.6 | 5.5 | 24.00 |
| 14.01 | 31.56448 | 87.4 | 58.5 | 1093.754 | 1092.718 | 0.20 | 1.036 | 7.6 | 5.5 | 24.00 |
| 15.01 | 31.75654 | 84.4 | 59.1 | 1267.363 | 1266.046 | 0.19 | 1.317 | 7.5 | 5.5 | 24.00 |
| 16.01 | 34.52121 | 89.4 | 60.7 | 1227.248 | 1226.205 | 0.21 | 1.043 | 7.6 | 5.5 | 24.00 |
| Итого | 1056.73324 | 83.4 | 56.9 | 40072.044 | 40044.614 | 7.18 | 27.430 | 7.5 | 5.5 | 888.00 |

Тотч.пер. = Tнар + Tмакс + Tdelta_t<мин + Tэл.пит + Tпроч.ав. Tмин = 0.43ч
 888.00ч = 888.00ч + 0.00ч + 0.00ч + 0.00ч + 0.00ч

| Т/С ТЕПЛОСЕТЬ нарастающим итогом | Qтеп [Гкал] | Gпод [тонн] | Gобр [тонн] | Gп [тонн] | Tнар [час] |
|-------------------------------------|----------------|----------------|----------------|--------------|---------------|
| 17-01-26 00:00 | 6167.49776 | 372999.356 | 372423.030 | 104.18 | 10623.73 |
| 11-12-25 00:00 | 5110.76452 | 332927.312 | 332378.416 | 97.00 | 9735.73 |

Расшифровка ошибок:
 (<) параметр < min
 (>) параметр > max
 (X) обрыв датчика
 (T) delta_t < min
 (R) перезапуск

| | | | | | | |
|-------|------------|-----------|-----------|------|--------|--|
| Итого | 1056.73324 | 40072.044 | 40044.614 | 7.18 | 888.00 | (С) коррекц. часов (#) электропитание |
|-------|------------|-----------|-----------|------|--------|--|

Тобщ = 888.00ч

ВИС.Т.НС-М-2.60 / НС-А-2.57 CRC 27672 HcSet 2.60 08-07-24 12ч

Q=G1 (H1-H2)

19.01.26 Подпись _____

МЕСЯЧНЫЙ ПРОТОКОЛ УЧЕТА ТЕПЛОВОЙ ЭНЕРГИИ И ТЕПЛОНОСИТЕЛЯ ЗА 12 мес 25 г.

Название потребителя _____ Абонент _____
 Адрес потребителя Огарево 6 Телефон _____
 Ответственное лицо _____
 Вычислитель ТС-401-5-5-3-Е2Т Сер.ном. 130144 Расход под 0.000.. 40.000 м3/ч Ду 50 мм
 Отчетное число месяца 11 Отчетное время 00:00 Расход обр 0.000.. 40.000 м3/ч Ду 50 мм

| Дата | Qтеп [Гкал] | tпод [оС] | tобр [оС] | Gпод [тонн] | Gобр [тонн] | Gпод-Gобр [тонн] | рпод [ат] | робр [ат] | Tнар [час] |
|-------|----------------|--------------|--------------|----------------|----------------|---------------------|--------------|--------------|---------------|
| 11.12 | | | | | | | | | |
| 12.12 | | | | | | | | | |
| 13.12 | | | | | | | | | |
| 14.12 | 0.90779 | 73.8 | 61.8 | 75.773 | 77.878 | -2.105 | 3.3 | 3.1 | 7.00 |
| 15.12 | 3.12473 | 73.7 | 61.6 | 258.200 | 265.459 | -7.259 | 3.1 | 2.9 | 24.00 |
| 16.12 | 2.93226 | 71.3 | 60.0 | 259.064 | 266.327 | -7.263 | 3.0 | 2.8 | 24.00 |
| 17.12 | 2.90773 | 71.8 | 60.5 | 257.992 | 265.268 | -7.276 | 3.0 | 2.8 | 24.00 |
| 18.12 | 2.85310 | 71.1 | 60.1 | 257.734 | 264.994 | -7.260 | 3.0 | 2.8 | 24.00 |
| 19.12 | 2.77968 | 70.0 | 59.5 | 263.335 | 270.787 | -7.452 | 3.2 | 3.0 | 24.00 |
| 20.12 | 2.83332 | 70.2 | 59.7 | 268.640 | 276.161 | -7.521 | 3.3 | 3.1 | 24.00 |
| 21.12 | 2.79612 | 70.1 | 59.7 | 268.527 | 276.102 | -7.575 | 3.4 | 3.1 | 24.00 |
| 22.12 | 2.81129 | 70.5 | 59.9 | 265.662 | 273.171 | -7.509 | 3.3 | 3.1 | 24.00 |
| 23.12 | 3.28777 | 75.7 | 62.9 | 257.389 | 264.435 | -7.046 | 3.2 | 3.0 | 24.00 |
| 24.12 | 3.41635 | 76.3 | 62.8 | 254.028 | 260.900 | -6.872 | 3.2 | 3.0 | 24.00 |
| 25.12 | 3.14866 | 73.8 | 61.8 | 261.963 | 268.863 | -6.900 | 3.3 | 3.0 | 24.00 |
| 26.12 | 2.86560 | 70.3 | 59.5 | 264.627 | 271.568 | -6.941 | 3.3 | 3.0 | 24.00 |
| 27.12 | 2.89330 | 71.3 | 60.4 | 264.382 | 271.330 | -6.948 | 3.3 | 3.0 | 24.00 |
| 28.12 | 2.85406 | 71.0 | 60.2 | 264.545 | 271.407 | -6.862 | 3.3 | 3.1 | 24.00 |
| 29.12 | 2.86658 | 71.3 | 60.5 | 264.941 | 271.563 | -6.622 | 3.3 | 3.0 | 24.00 |
| 30.12 | 2.90045 | 72.0 | 61.0 | 264.744 | 271.394 | -6.650 | 3.2 | 3.0 | 24.00 |
| 31.12 | 2.99892 | 73.3 | 62.0 | 263.972 | 270.986 | -7.014 | 3.2 | 2.9 | 24.00 |
| 01.01 | 3.37472 | 77.6 | 64.6 | 258.574 | 265.504 | -6.930 | 3.1 | 2.9 | 24.00 |
| 02.01 | 3.38065 | 77.5 | 64.2 | 255.033 | 261.693 | -6.660 | 3.1 | 2.9 | 23.90 |
| 03.01 | 3.15828 | 74.7 | 62.6 | 262.242 | 269.242 | -7.000 | 3.3 | 3.0 | 24.00 |
| 04.01 | 3.00511 | 73.0 | 61.5 | 262.820 | 269.848 | -7.028 | 3.4 | 3.1 | 24.00 |
| 05.01 | 3.02895 | 73.2 | 61.7 | 264.278 | 271.298 | -7.020 | 3.4 | 3.2 | 24.00 |
| 06.01 | 3.11795 | 74.4 | 62.6 | 263.781 | 270.730 | -6.949 | 3.4 | 3.1 | 24.00 |
| 07.01 | 3.04192 | 73.4 | 61.9 | 263.848 | 270.805 | -6.957 | 3.4 | 3.1 | 24.00 |
| 08.01 | 3.06455 | 73.6 | 61.8 | 258.885 | 265.757 | -6.872 | 3.4 | 3.2 | 24.00 |
| 09.01 | 3.22965 | 75.9 | 63.1 | 252.365 | 258.926 | -6.561 | 3.3 | 3.2 | 24.00 |
| 10.01 | 3.13226 | 75.4 | 62.8 | 248.840 | 255.394 | -6.554 | 3.3 | 3.1 | 23.86 |
| 11.01 | 3.12571 | 75.4 | 63.0 | 251.160 | 257.752 | -6.592 | 3.3 | 3.1 | 24.00 |
| 12.01 | 2.93684 | 72.1 | 60.6 | 255.006 | 261.717 | -6.711 | 3.4 | 3.2 | 24.00 |
| 13.01 | 3.13725 | 74.9 | 62.7 | 258.098 | 265.016 | -6.918 | 3.4 | 3.2 | 24.00 |
| 14.01 | 3.13431 | 74.2 | 62.2 | 260.573 | 267.488 | -6.915 | 3.4 | 3.2 | 23.93 |
| 15.01 | 3.14123 | 74.0 | 61.8 | 257.782 | 264.555 | -6.773 | 3.4 | 3.2 | 24.00 |
| 16.01 | 3.40459 | 77.1 | 63.7 | 254.899 | 261.557 | -6.658 | 3.5 | 3.3 | 24.00 |
| Итого | 101.59168 | 73.3' | 61.6' | 8663.702 | 8895.875 | -232.173 | 3.3 | 3.0 | 798.69 |

Тотч.пер. = Tнар + Tмакс + Tdelta_t<мин + Tэл.пит + Tпроч.ав.
 888.00ч = 798.69ч + 0.00ч + 0.31ч + 0.00ч + 89.00ч

| Т/С Отопление нарастающим итогом | Qтеп [Гкал] | Gпод [тонн] | Gобр [тонн] | Tнар [час] |
|-------------------------------------|----------------|----------------|----------------|---------------|
| 17-01-26 00:00 | 7186.63129 | 623104.446 | 629520.157 | 65952.24 |
| 14-12-25 18:00 | 7085.16741 | 614451.588 | 620635.423 | 65154.55 |

Расшифровка ошибок:
 (<) параметр < min
 (>) параметр > max
 (X) обрыв датчика
 (T) delta_t < min
 (R) перезапуск

| | | | | |
|-------|-----------|----------|----------|--------|
| Итого | 101.59168 | 8663.702 | 8895.875 | 798.69 |
|-------|-----------|----------|----------|--------|

(С) коррекц. часов
(#) электропитание

Тобщ = 888.00ч

Обновление 2.55 13-06-19 17ч НС-М-2.54 / НС-А-2.52 Q=G1 (Н1-Н2)

19.01.26 Подпись _____

МЕСЯЧНЫЙ ПРОТОКОЛ УЧЕТА ТЕПЛОВОЙ ЭНЕРГИИ И ТЕПЛОНОСИТЕЛЯ ЗА 12 мес 25 г.

Название потребителя _____ Абонент _____
 Адрес потребителя Садовая 22А Телефон _____
 Ответственное лицо _____

Вычислитель ТС-203-2-2-3 Сер.ном. 00258 Расход под 0.240.. 60.000 м3/ч Ду 80 мм
 Отчетное число месяца 11 Отчетное время 00:00 Расход обр 0.240.. 60.000 м3/ч Ду 80 мм
 Расход п ротор 10.00 л/имп Ду 25 мм

| Дата | Qтеп [Гкал] | tпод [оС] | tобр [оС] | Gпод [тонн] | Gобр [тонн] | Gп [тонн] | Gпод-Gобр [тонн] | рпод [ат] | робр [ат] | Tнар [час] |
|--------------|------------------|--------------|--------------|------------------|------------------|--------------|---------------------|--------------|--------------|---------------|
| 11.12 | 15.34526 | 75.8 | 62.1 | 1119.604 | 1093.418 | 0.00 | 26.186 | < | 1.4 | 24.00 |
| 12.12 | 14.15870 | 75.8 | 62.2 | 1041.943 | 1018.001 | 0.00 | 23.942 | < | 1.5 | 24.00 |
| 13.12 | 16.43880 | 78.4 | 62.6 | 1038.280 | 1015.492 | 0.00 | 22.788 | < | 1.6 | 24.00 |
| 14.12 | 16.78985 | 78.9 | 62.5 | 1024.431 | 1002.152 | 0.00 | 22.279 | < | 1.6 | 24.00 |
| 15.12 | 16.72481 | 78.8 | 62.2 | 1007.989 | 985.944 | 0.00 | 22.045 | < | 1.6 | 24.00 |
| 16.12 | 15.69602 | 78.7 | 62.0 | 944.834 | 925.653 | 0.00 | 19.181 | < | 1.5 | 24.00 |
| 17.12 | 16.07909 | 76.9 | 61.6 | 1054.315 | 1031.291 | 0.00 | 23.024 | < | 1.5 | 24.00 |
| 18.12 | 16.04507 | 76.9 | 61.8 | 1066.158 | 1043.174 | 0.00 | 22.984 | < | 1.6 | 24.00 |
| 19.12 | 16.00954 | 76.8 | 62.0 | 1078.141 | 1055.754 | 0.00 | 22.387 | < | 1.6 | 24.00 |
| 20.12 | 16.16390 | 76.9 | 62.0 | 1088.601 | 1066.450 | 0.00 | 22.151 | < | 1.6 | 24.00 |
| 21.12 | 16.33535 | 76.9 | 61.9 | 1092.953 | 1071.278 | 0.00 | 21.675 | < | 1.6 | 24.00 |
| 22.12 | 15.88426 | 76.8 | 62.4 | 1102.338 | 1080.697 | 0.00 | 21.641 | < | 1.5 | 24.00 |
| 23.12 | 19.12969 | 86.7 | 67.6 | 1002.171 | 989.072 | 0.00 | 13.099 | < | 1.4 | 24.00 |
| 24.12 | 20.72297 | 91.4 | 70.0 | 969.012 | 959.854 | 0.00 | 9.158 | < | 1.4 | 24.00 |
| 25.12 | 15.70691 | 75.7 | 60.4 | 1027.740 | 1009.344 | 0.00 | 18.396 | < | 1.7 | 24.00 |
| 26.12 | 16.29400 | 77.6 | 62.1 | 1054.323 | 1036.394 | 0.00 | 17.929 | < | 1.6 | 24.00 |
| 27.12 | 16.38630 | 77.7 | 62.5 | 1075.451 | 1057.413 | 0.00 | 18.038 | < | < 1.5 | 24.00 |
| 28.12 | 16.71534 | 78.7 | 62.7 | 1041.736 | 1026.384 | 0.00 | 15.352 | < | 1.5 | 24.00 |
| 29.12 | 16.83210 | 79.0 | 63.0 | 1053.062 | 1038.601 | 0.00 | 14.461 | < | 1.4 | 24.00 |
| 30.12 | 16.59340 | 79.0 | 62.8 | 1028.050 | 1014.808 | 0.00 | 13.242 | < | 1.4 | 24.00 |
| 31.12 | 17.84335 | 80.9 | 63.2 | 1008.514 | 998.008 | 0.00 | 10.506 | < | 1.4 | 24.00 |
| 01.01 | 18.31332 | 85.4 | 66.6 | 970.923 | 964.800 | 0.00 | 6.123 | < | 1.3 | 24.00 |
| 02.01 | 18.82045 | 87.4 | 67.5 | 942.991 | 939.358 | 0.00 | 3.633 | < | 1.3 | 24.00 |
| 03.01 | 17.00038 | 81.0 | 63.7 | 985.467 | 978.770 | 0.00 | 6.697 | < | 1.4 | 24.00 |
| 04.01 | 15.84979 | 76.9 | 61.4 | 1019.560 | 1010.139 | 0.00 | 9.421 | < | 1.3 | 24.00 |
| 05.01 | 16.55152 | 78.6 | 62.4 | 1017.228 | 1009.387 | 0.00 | 7.841 | < | 1.3 | 24.00 |
| 06.01 | 17.18207 | 80.4 | 63.5 | 1013.035 | 1005.211 | 0.00 | 7.824 | < | 1.3 | 24.00 |
| 07.01 | 16.80418 | 79.5 | 63.1 | 1022.812 | 1010.862 | 0.00 | 11.950 | < | 1.3 | 24.00 |
| 08.01 | 16.84934 | 79.4 | 63.0 | 1025.739 | 1011.602 | 0.00 | 14.137 | < | 1.4 | 24.00 |
| 09.01 | 18.56814 | 84.1 | 65.1 | 976.109 | 966.211 | 0.00 | 9.898 | < | 1.3 | 24.00 |
| 10.01 | 17.28798 | 79.9 | 62.7 | 1001.233 | 987.825 | 0.00 | 13.408 | < | 1.4 | 24.00 |
| 11.01 | 17.80615 | 81.1 | 63.1 | 988.746 | 974.751 | 0.00 | 13.995 | < | 1.5 | 24.00 |
| 12.01 | 16.38441 | 77.0 | 60.9 | 1019.344 | 998.971 | 0.00 | 20.373 | < | 1.6 | 24.00 |
| 13.01 | 18.41892 | 84.2 | 65.6 | 993.816 | 976.816 | 0.00 | 17.000 | < | 1.3 | 24.00 |
| 14.01 | 18.81362 | 84.9 | 65.9 | 989.281 | 972.593 | 0.00 | 16.688 | < | 1.3 | 24.00 |
| 15.01 | 18.69208 | 84.9 | 65.8 | < 982.368 | < 964.630 | 0.00 | 17.738 | < | 1.3 | # 24.00 |
| 16.01 | 21.02413 | 92.5 | 70.8 | 966.193 | 953.575 | 0.00 | 12.618 | < | 1.1 | 24.00 |
| Итого | 632.26119 | 80.2' | 63.5' | 37834.491 | 37244.683 | 0.00 | 589.808 | | 1.4 | 888.00 |

Тотч.пер. = Tнар + Tмин + Tmax + Tdelta_t<мин + Tэл.пит + Tпроч.ав.
 888.00ч = 888.00ч + 0.00ч + 0.00ч + 0.00ч + 0.00ч + 0.00ч

| Т/С Ввод т/сети нарастающим итогом | Qтеп [Гкал] | Gпод [тонн] | Gобр [тонн] | Gп [тонн] | Tнар [час] |
|---------------------------------------|----------------|----------------|----------------|--------------|---------------|
| 17-01-26 00:00 | 19624.27712 | 1384856.774 | 1382427.880 | 55.62 | 43926.77 |
| 11-12-25 00:00 | 18992.01593 | 1347022.283 | 1345183.197 | 55.62 | 43038.77 |

Расшифровка ошибок:
 (<) параметр < min
 (>) параметр > max
 (X) обрыв датчика
 (T) delta_t < min
 (R) перезапуск

| | | | | | | |
|-------|-----------|-----------|-----------|------|--------|--|
| Итого | 632.26119 | 37834.491 | 37244.683 | 0.00 | 888.00 | (С) коррекц. часов (#) электропитание |
|-------|-----------|-----------|-----------|------|--------|--|

Тобщ = 888.00ч

Обновление 2.39 30-07-20 11ч НС-А-2.37 / НС-А-2.36 Q=G1 (Н1-Н2)

19.01.26 Подпись _____

МЕСЯЧНЫЙ ПРОТОКОЛ УЧЕТА ТЕПЛОВОЙ ЭНЕРГИИ И ТЕПЛОНОСИТЕЛЯ ЗА 12 мес 25 г.

Название потребителя _____ Абонент _____
 Адрес потребителя Северная 36 Телефон _____
 Ответственное лицо _____

Вычислитель ТС-201-0-2-1-1 Сер.ном. 122600 Расход под 0.80.. 200.00 м3/ч Ду 150 мм
 Отчетное число месяца 11 Отчетное время 00:00 Расход обр 0.80.. 200.00 м3/ч Ду 150 мм
 Расход п ротор 10.00 л/имп Ду 40 мм

| Дата | Qтеп [Гкал] | tпод [оС] | tобр [оС] | Gпод [тонн] | Gобр [тонн] | Gп [тонн] | Gпод-Gобр [тонн] | Tнар [час] |
|--------------|------------------|--------------|--------------|-----------------|-----------------|--------------|---------------------|---------------|
| 11.12 | 23.9955 | 76.2 | 48.2 | 857.83 | 856.51 | 0.14 | 1.32 | 24.00 |
| 12.12 | 23.2581 | 76.7 | 48.6 | 828.46 | 826.88 | 0.27 | 1.58 | 24.00 |
| 13.12 | 33.1859 | 79.1 | 55.0 | 1376.71 | 1373.89 | 0.15 | 2.82 | 24.00 |
| 14.12 | 35.1155 | 79.3 | 56.5 | 1544.55 | 1541.57 | 0.12 | 2.98 | 24.00 |
| 15.12 | 34.4747 | 79.3 | 57.4 | 1580.77 | 1577.88 | 0.25 | 2.89 | 24.00 |
| 16.12 | 30.7373 | 78.7 | 54.9 | 1292.93 | 1290.62 | 0.26 | 2.31 | 24.00 |
| 17.12 | 27.3635 | 77.2 | 52.9 | 1125.87 | 1123.76 | 0.22 | 2.11 | 24.00 |
| 18.12 | 27.6902 | 77.2 | 51.7 | 1083.53 | 1081.39 | 0.25 | 2.14 | 24.00 |
| 19.12 | 26.1343 | 77.2 | 50.4 | 974.16 | 972.42 | 0.24 | 1.74 | 24.00 |
| 20.12 | 26.9731 | 77.2 | 49.9 | 988.04 | 986.46 | 0.13 | 1.58 | 24.00 |
| 21.12 | 25.9667 | 77.2 | 48.7 | 910.96 | 909.55 | 0.23 | 1.41 | 24.00 |
| 22.12 | 26.4466 | 77.8 | 49.8 | 943.55 | 941.97 | 0.17 | 1.58 | 24.00 |
| 23.12 | 41.8986 | 91.0 | 62.5 | 1469.91 | 1467.48 | 0.15 | 2.43 | 24.00 |
| 24.12 | 43.5204 | 87.5 | 64.9 | 1930.91 | 1927.58 | 0.25 | 3.33 | 24.00 |
| 25.12 | 32.0915 | 75.8 | 55.2 | 1561.50 | 1558.32 | 0.28 | 3.18 | 24.00 |
| 26.12 | 27.7611 | 77.5 | 50.0 | 1008.10 | 1006.11 | 0.43 | 1.99 | 24.00 |
| 27.12 | 28.3600 | 78.4 | 50.4 | 1010.81 | 1008.94 | 0.35 | 1.87 | 24.00 |
| 28.12 | 30.0579 | 79.2 | 51.3 | 1075.47 | 1073.21 | 0.33 | 2.26 | 24.00 |
| 29.12 | 30.2211 | 79.4 | 52.0 | 1103.67 | 1101.49 | 0.25 | 2.18 | 24.00 |
| 30.12 | 31.3537 | 79.3 | 53.2 | 1201.30 | 1199.05 | 0.41 | 2.25 | 24.00 |
| 31.12 | 35.5484 | 82.5 | 56.3 | 1354.22 | 1351.62 | 0.24 | 2.60 | 24.00 |
| 01.01 | 39.0020 | 86.7 | 61.6 | 1552.82 | 1549.84 | 0.36 | 2.98 | 24.00 |
| 02.01 | 40.5269 | 87.2 | 63.5 | 1710.11 | 1706.83 | 0.50 | 3.28 | 24.00 |
| 03.01 | 32.6231 | 80.0 | 56.2 | 1367.81 | 1365.02 | 0.50 | 2.79 | 24.00 |
| 04.01 | 29.6741 | 77.5 | 53.1 | 1216.33 | 1213.89 | 0.38 | 2.44 | 24.00 |
| 05.01 | 32.0583 | 79.4 | 53.8 | 1250.79 | 1248.03 | 0.75 | 2.76 | 24.00 |
| 06.01 | 33.8323 | 81.4 | 55.0 | 1282.12 | 1279.43 | 0.59 | 2.69 | 24.00 |
| 07.01 | 33.0138 | 79.0 | 55.2 | 1386.95 | 1383.95 | 0.49 | 3.00 | 24.00 |
| 08.01 | 35.5257 | 81.1 | 57.2 | 1488.83 | 1485.72 | 0.49 | 3.11 | 24.00 |
| 09.01 | 38.2817 | 84.4 | 59.4 | 1526.47 | 1523.24 | 0.46 | 3.23 | 24.00 |
| 10.01 | 32.5971 | 80.3 | 54.2 | 1250.55 | 1247.88 | 0.82 | 2.67 | 24.00 |
| 11.01 | 34.8653 | 80.0 | 55.8 | 1443.14 | 1440.22 | 0.54 | 2.92 | 24.00 |
| 12.01 | 32.7441 | 78.1 | 55.3 | 1441.28 | 1438.50 | 0.53 | 2.78 | 24.00 |
| 13.01 | 35.3475 | 86.9 | 57.2 | 1189.88 | 1187.66 | 0.49 | 2.22 | 24.00 |
| 14.01 | 35.1387 | 83.6 | 56.7 | 1306.98 | 1304.55 | 1.00 | 2.43 | 24.00 |
| 15.01 | 38.0108 | 87.4 | 58.5 | 1314.80 | 1312.20 | 0.87 | 2.60 | 24.00 |
| 16.01 | 42.1025 | 93.4 | 62.9 | 1379.25 | 1376.93 | 0.87 | 2.32 | 24.00 |
| Итого | 1207.4980 | 81.3' | 55.8' | 47331.36 | 47240.59 | 14.76 | 90.77 | 888.00 |

Тотч.пер. = Tнар + Tмин + Tмакс + Tdelta_t<мин + Tэл.пит + Tпроч.ав.
 888.00ч = 888.00ч + 0.00ч + 0.00ч + 0.00ч + 0.00ч + 0.00ч

| Т/С Ввод т/сети нарастающим итогом | Qтеп [Гкал] | Gпод [тонн] | Gобр [тонн] | Gп [тонн] | Tнар [час] |
|---------------------------------------|----------------|----------------|----------------|--------------|---------------|
| 17-01-26 00:00 | 73367.1397 | 3131684.80 | 3127835.50 | 1596.61 | 98325.05 |
| 11-12-25 00:00 | 72159.6417 | 3084353.44 | 3080594.91 | 1581.85 | 97437.05 |

Расшифровка ошибок:
 (<) параметр < min
 (>) параметр > max
 (X) обрыв датчика
 (T) delta_t < min
 (R) перезапуск

| | | | | | | |
|-------|-----------|----------|----------|-------|--------|--|
| Итого | 1207.4980 | 47331.36 | 47240.59 | 14.76 | 888.00 | (С) коррекц. часов (#) электропитание |
|-------|-----------|----------|----------|-------|--------|--|

Тобщ = 888.00ч

Обновление 2.49 19-04-17 16ч НС-М-2.49 / НС-А-2.36 Q=G1 (Н1-Н2)

19.01.26 Подпись _____

МЕСЯЧНЫЙ ПРОТОКОЛ УЧЕТА ТЕПЛОВОЙ ЭНЕРГИИ И ТЕПЛОНОСИТЕЛЯ ЗА 12 мес 25 г.

Название потребителя _____ Абонент _____
 Адрес потребителя Союзная 4 Телефон _____
 Ответственное лицо _____
 Вычислитель ТС-400-3-4-2-1 Сер.ном. 44905 Расход под 0.64.. 160.00 м3/ч Ду 100 мм
 Отчетное число месяца 11 Отчетное время 00:00 Расход обр 0.64.. 160.00 м3/ч Ду 100 мм

| Дата | Qтеп [Гкал] | tпод [оС] | tобр [оС] | Gпод [тонн] | Gобр [тонн] | Gпод-Gобр [тонн] | рпод [ат] | робр [ат] | Tнар [час] |
|-------|----------------|--------------|--------------|----------------|----------------|---------------------|--------------|--------------|---------------|
| 11.12 | 11.6228 | 54.8 | 47.9 | 1688.10 | 1686.92 | 1.18 | 6.5 | < | 24.00 |
| 12.12 | 11.5655 | 55.2 | 48.4 | 1686.59 | 1685.42 | 1.17 | 6.6 | < | 24.00 |
| 13.12 | 12.9371 | 57.5 | 49.9 | 1687.63 | 1686.45 | 1.18 | 6.6 | < | 24.00 |
| 14.12 | 14.3197 | 60.1 | 51.7 | 1688.34 | 1687.19 | 1.15 | 6.6 | < | 24.00 |
| 15.12 | 15.5100 | 62.8 | 53.6 | 1688.62 | 1687.46 | 1.16 | 6.6 | < | 24.00 |
| 16.12 | 13.6820 | 58.9 | 50.8 | 1687.69 | 1686.53 | 1.16 | 6.5 | < | 24.00 |
| 17.12 | 12.0511 | 55.3 | 48.2 | 1686.75 | 1685.58 | 1.17 | 6.4 | < | 24.00 |
| 18.12 | 11.9395 | 55.2 | 48.1 | 1687.80 | 1686.62 | 1.18 | 6.5 | < | 24.00 |
| 19.12 | 11.9321 | 55.1 | 48.0 | 1687.72 | 1686.50 | 1.22 | 6.5 | < | 24.00 |
| 20.12 | 11.9330 | 54.8 | 47.8 | 1688.34 | 1687.12 | 1.22 | 6.5 | < | 24.00 |
| 21.12 | 11.9157 | 55.0 | 47.9 | 1688.22 | 1686.99 | 1.23 | 6.4 | < | 24.00 |
| 22.12 | 12.0840 | 55.6 | 48.5 | 1687.36 | 1686.16 | 1.20 | 6.4 | < | 24.00 |
| 23.12 | 13.6097 | 58.0 | 50.0 | 1688.07 | 1686.86 | 1.21 | 6.5 | < | 24.00 |
| 24.12 | 16.1365 | 62.3 | 52.7 | 1688.53 | 1687.31 | 1.22 | 6.7 | < | 24.00 |
| 25.12 | 13.3900 | 56.3 | 48.4 | 1688.41 | 1687.19 | 1.22 | 6.8 | < | 24.00 |
| 26.12 | 13.3187 | 57.0 | 49.1 | 1688.49 | 1687.27 | 1.22 | 6.7 | < | 24.00 |
| 27.12 | 13.3034 | 57.7 | 49.8 | 1688.70 | 1687.49 | 1.21 | 6.6 | < | 24.00 |
| 28.12 | 12.9506 | 57.1 | 49.5 | 1689.13 | 1687.94 | 1.19 | 6.6 | < | 24.00 |
| 29.12 | 13.0718 | 57.5 | 49.8 | 1686.80 | 1685.59 | 1.21 | 6.5 | < | 23.96 |
| 30.12 | 12.8223 | 56.7 | 49.1 | 1689.68 | 1688.48 | 1.20 | 6.5 | < | 24.00 |
| 31.12 | 12.9152 | 56.8 | 49.2 | 1690.50 | 1689.30 | 1.20 | 6.4 | < | 24.00 |
| 01.01 | 14.0594 | 58.7 | 50.4 | 1691.01 | 1689.82 | 1.19 | 6.5 | < | 24.00 |
| 02.01 | 14.9256 | 59.8 | 51.0 | 1691.38 | 1690.19 | 1.19 | 6.4 | < | 24.00 |
| 03.01 | 14.2529 | 58.5 | 50.0 | 1690.04 | 1688.85 | 1.19 | 6.3 | < | 24.00 |
| 04.01 | 13.5608 | 57.6 | 49.6 | 1689.94 | 1688.75 | 1.19 | 6.4 | < | 24.00 |
| 05.01 | 13.1565 | 57.1 | 49.1 < | 1642.61 < | 1641.44 | 1.17 | 6.3 | < | # 24.00 |
| 06.01 | 13.4338 | 57.1 | 49.1 | 1690.31 | 1689.12 | 1.19 | 6.4 | < | 24.00 |
| 07.01 | 13.4205 | 56.9 | 48.9 | 1666.35 | 1665.17 | 1.18 | 6.3 | < | # 24.00 |
| 08.01 | 13.5995 | 57.4 | 49.4 | 1690.33 | 1689.14 | 1.19 | 6.3 | < | 24.00 |
| 09.01 | 14.4098 | 59.1 | 50.6 | 1689.85 | 1688.68 | 1.17 | 6.4 | < | 24.00 |
| 10.01 | 13.4268 | 57.1 | 49.1 | 1689.07 | 1687.89 | 1.18 | 6.3 | < | 24.00 |
| 11.01 | 13.4232 | 56.9 | 49.0 | 1689.51 | 1688.34 | 1.17 | 6.3 | < | 24.00 |
| 12.01 | 13.5372 | 57.5 | 49.5 | 1688.88 | 1687.72 | 1.16 | 6.3 | < | 24.00 |
| 13.01 | 13.3428 | 56.9 | 49.0 | 1689.39 | 1688.22 | 1.17 | 6.3 | < | 24.00 |
| 14.01 | 13.9390 | 57.9 | 49.7 | 1689.46 | 1688.29 | 1.17 | 6.3 | < | 24.00 |
| 15.01 | 13.8108 | 57.6 | 49.4 | 1689.22 | 1688.05 | 1.17 | 6.3 | < | 24.00 |
| 16.01 | 14.4964 | 58.6 | 50.0 | 1690.21 | 1689.04 | 1.17 | 6.4 | < | 24.00 |
| Итого | 493.8057 | 57.4' | 49.5' | 62419.03 | 62375.08 | 43.95 | 6.5 | | 887.96 |

Тотч.пер. = Tнар + Tмин + Tмакс + Tdelta_t<мин + Tэл.пит + Tпроч.ав.
 888.00ч = 887.96ч + 0.00ч + 0.00ч + 0.04ч + 0.00ч + 0.00ч

| Т/С Отопление нарастающим итогом | Qтеп [Гкал] | Gпод [тонн] | Gобр [тонн] | Tнар [час] |
|-------------------------------------|----------------|----------------|----------------|---------------|
| 17-01-26 00:00 | 39611.5371 | 5572031.31 | 5569511.99 | 86107.91 |
| 11-12-25 00:00 | 39117.7314 | 5509612.28 | 5507136.91 | 85219.95 |

Расшифровка ошибок:
 (<) параметр < min
 (>) параметр > max
 (X) обрыв датчика
 (T) delta_t < min
 (R) перезапуск

| | | | | |
|-------|----------|----------|----------|--------|
| Итого | 493.8057 | 62419.03 | 62375.08 | 887.96 |
|-------|----------|----------|----------|--------|

(С) коррекц. часов
(#) электропитание

Тобщ = 888.00ч

Обновление 2.39 15-03-19 13ч НС-А-2.37 / НС-А-2.36 Q=G1 (Н1-Н2)

19.01.26 Подпись _____

МЕСЯЧНЫЙ ПРОТОКОЛ УЧЕТА ТЕПЛОВОЙ ЭНЕРГИИ И ТЕПЛОНОСИТЕЛЯ ЗА 12 мес 25 г.

Название потребителя _____ Абонент _____
 Адрес потребителя Усово-Тупик 9 Телефон _____
 Ответственное лицо _____

Вычислитель ТС-0200-0-2-1-1-0 Сер.ном. 180098 Расход под 0.080.. 40.000 м3/ч Ду 50 мм
 Отчетное число месяца 11 Отчетное время 00:00 Расход обр 0.080.. 40.000 м3/ч Ду 50 мм

| Дата | Qтеп [Гкал] | tпод [оС] | tобр [оС] | Gпод [тонн] | Gобр [тонн] | Gпод-Gобр [тонн] | Tнар [час] |
|--------------|------------------|--------------|--------------|------------------|------------------|---------------------|---------------|
| 11.12 | 4.70934 | 68.2 | 45.9 | 211.387 | 211.242 | 0.145 | 24.00 |
| 12.12 | 4.52964 | 68.1 | 45.8 | 204.727 | 204.585 | 0.142 | 24.00 |
| 13.12 | 6.20281 | 69.8 | 49.6 | 307.227 | 307.028 | 0.199 | 24.00 |
| 14.12 | 6.77652 | 71.7 | 50.0 | 311.579 | 311.376 | 0.203 | 24.00 |
| 15.12 | 6.56946 | 71.2 | 50.9 | 325.138 | 324.930 | 0.208 | 24.00 |
| 16.12 | 5.56935 | 68.5 | 48.2 | 276.940 | 276.760 | 0.180 | 24.00 |
| 17.12 | 4.94414 | 68.4 | 46.0 | 220.417 | 220.267 | 0.150 | 24.00 |
| 18.12 | 5.16039 | 68.5 | 46.8 | 237.905 | 237.747 | 0.158 | 24.00 |
| 19.12 | 5.25571 | 68.6 | 46.8 | 241.601 | 241.442 | 0.159 | 24.00 |
| 20.12 | 5.40547 | 68.6 | 47.4 | 255.025 | 254.860 | 0.165 | 24.00 |
| 21.12 | 5.25118 | 68.6 | 46.6 | 238.516 | 238.361 | 0.155 | 24.00 |
| 22.12 | 5.18423 | 68.6 | 46.9 | 240.503 | 240.345 | 0.158 | 24.00 |
| 23.12 | 7.71946 | 77.2 | 54.7 | 352.227 | 351.962 | 0.265 | 24.00 |
| 24.12 | 8.15885 | 78.2 | 57.2 | 398.698 | 398.390 | 0.308 | 24.00 |
| 25.12 | 6.17544 | 69.1 | 49.3 | 310.920 | 310.721 | 0.199 | 24.00 |
| 26.12 | 5.23275 | 68.3 | 47.4 | 250.992 | 250.834 | 0.158 | 24.00 |
| 27.12 | 5.41949 | 68.4 | 47.3 | 257.257 | 257.092 | 0.165 | 24.00 |
| 28.12 | 5.68691 | 68.5 | 48.3 | 281.257 | 281.072 | 0.185 | 24.00 |
| 29.12 | 5.87217 | 68.5 | 48.9 | 299.351 | 299.156 | 0.195 | 24.00 |
| 30.12 | 6.14224 | 68.6 | 49.7 | 324.890 | 324.675 | 0.215 | 24.00 |
| 31.12 | 6.55472 | 70.7 | 50.0 | 317.836 | 317.619 | 0.217 | 24.00 |
| 01.01 | 7.18413 | 76.4 | 53.0 | 307.599 | 307.390 | 0.209 | 24.00 |
| 02.01 | 7.66140 | 77.3 | 55.3 | 349.481 | 349.245 | 0.236 | 24.00 |
| 03.01 | 6.29830 | 70.7 | 50.6 | 314.975 | 314.769 | 0.206 | 24.00 |
| 04.01 | 5.62081 | 68.4 | 48.9 | 288.109 | 287.922 | 0.187 | 24.00 |
| 05.01 | 5.97980 | 68.5 | 49.7 | 317.877 | 317.427 | 0.450 | 24.00 |
| 06.01 | 6.37450 | 69.3 | 50.5 | 340.524 | 340.294 | 0.230 | 24.00 |
| 07.01 | 6.23683 | 69.0 | 50.5 | 337.299 | 337.076 | 0.223 | 24.00 |
| 08.01 | 6.35051 | 71.0 | 50.8 | 315.542 | 315.328 | 0.214 | 24.00 |
| 09.01 | 7.03480 | 75.3 | 52.4 | 306.824 | 306.621 | 0.203 | 24.00 |
| 10.01 | 6.08945 | 69.0 | 49.8 | 318.063 | 317.854 | 0.209 | 24.00 |
| 11.01 | 6.55015 | 69.0 | 50.9 | 361.721 | 361.475 | 0.246 | 24.00 |
| 12.01 | 5.87188 | 68.5 | 49.5 | 309.169 | 308.967 | 0.202 | 24.00 |
| 13.01 | 6.55120 | 71.6 | 51.0 | 317.667 | 317.452 | 0.215 | 24.00 |
| 14.01 | 6.54718 | 72.1 | 51.0 | 310.769 | 310.564 | 0.205 | 24.00 |
| 15.01 | 6.86246 | 72.8 | 52.0 | 329.213 | 328.989 | 0.224 | 24.00 |
| 16.01 | 7.88110 | 78.1 | 56.6 | 380.014 | 379.717 | 0.297 | 24.00 |
| Итого | 227.61477 | 70.6 | 49.9 | 11069.239 | 11061.554 | 7.685 | 888.00 |

Тотч.пер. = Tнар + Tмин + Tmax + Tdelta_t<мин + Tэл.пит + Tпроч.ав.
 888.00ч = 888.00ч + 0.00ч + 0.00ч + 0.00ч + 0.00ч + 0.00ч

| Т/С Отопление нарастающим итогом | Qтеп [Гкал] | Gпод [тонн] | Gобр [тонн] | Tнар [час] |
|-------------------------------------|----------------|----------------|----------------|---------------|
| 17-01-26 00:00 | 10551.99199 | 707035.824 | 706347.503 | 66547.95 |
| 11-12-25 00:00 | 10324.37722 | 695966.585 | 695285.949 | 65659.95 |

Расшифровка ошибок:
 (<) параметр < min
 (>) параметр > max
 (X) обрыв датчика
 (T) delta_t < min
 (R) перезапуск

| | | | | |
|-------|-----------|-----------|-----------|--------|
| Итого | 227.61477 | 11069.239 | 11061.554 | 888.00 |
|-------|-----------|-----------|-----------|--------|

(С) коррекц. часов
(#) электропитание

Тобщ = 888.00ч

Обновление 2.54 24-01-18 10ч НС-М-2.51 / НС-А-2.36 Q=G1 (Н1-Н2)

19.01.26 Подпись _____

МЕСЯЧНЫЙ ПРОТОКОЛ УЧЕТА ТЕПЛОВОЙ ЭНЕРГИИ И ТЕПЛОНОСИТЕЛЯ ЗА 12 мес 25 г.

Название потребителя _____ Абонент _____
 Адрес потребителя Любы Новоселовой 12А Телефон _____
 Ответственное лицо _____

Вычислитель ТС-201-2-2-1 Сер.ном. 22278 Расход под 0.100.. 25.000 м3/ч Ду 50 мм
 Отчетное число месяца 11 Отчетное время 00:00 Расход обр 0.100.. 25.000 м3/ч Ду 50 мм
 Расход п ротор 10.00 л/имп Ду 20 мм

| Дата | Qтеп [Гкал] | tпод [оС] | tобр [оС] | Gпод [тонн] | Gобр [тонн] | Gп [тонн] | Gпод-Gобр [тонн] | рпод [ат] | робр [ат] | Tнар [час] |
|--------------|-----------------|--------------|--------------|------------------|------------------|--------------|---------------------|--------------|--------------|---------------|
| 11.12 | 2.02369 | 75.7 | 69.2 | 309.478 | 308.645 | 0.00 | 0.833 | < | < | 24.00 |
| 12.12 | 2.08419 | 75.7 | 69.0 | 311.431 | 311.236 | 0.00 | 0.195 | < | < | 24.00 |
| 13.12 | 2.19437 | 77.9 | 70.5 | 293.542 | 293.312 | 0.00 | 0.230 | < | < | 24.00 |
| 14.12 | 2.30633 | 78.6 | 70.7 | 291.939 | 291.750 | 0.00 | 0.189 | < | < | 24.00 |
| 15.12 | 2.17946 | 78.6 | 71.0 | 286.919 | 286.727 | 0.00 | 0.192 | < | < | 24.00 |
| 16.12 | 2.16825 | 78.5 | 71.0 | 290.714 | 290.494 | 0.00 | 0.220 | < | < | 24.00 |
| 17.12 | 2.06612 | 76.7 | 69.8 | 297.488 | 297.339 | 0.00 | 0.149 | < | < | 24.00 |
| 18.12 | 2.10158 | 76.7 | 69.6 | 297.372 | 297.254 | 0.00 | 0.118 | < | < | 24.00 |
| 19.12 | 2.15736 | 76.7 | 69.4 | 298.611 | 298.484 | 0.00 | 0.127 | < | < | 24.00 |
| 20.12 | 2.09079 | 76.6 | 69.6 | 296.696 | 296.398 | 0.00 | 0.298 | < | < | 24.00 |
| 21.12 | 2.03905 | 76.7 | 69.8 | 298.770 | 298.638 | 0.00 | 0.132 | < | < | 24.00 |
| 22.12 | 2.12720 | 76.7 | 69.6 | 299.624 | 299.514 | 0.00 | -0.006 | < | < | 24.00 |
| 23.12 | 2.37214 | 85.4 | 77.4 | 298.503 | 298.320 | 0.00 | -0.012 | < | < | 24.00 |
| 24.12 | 2.55822 | 91.8 | 83.1 | 293.951 | 293.888 | 0.00 | 0.063 | < | < | 24.00 |
| 25.12 | 2.03884 | 75.6 | 68.4 | 282.241 | 282.142 | 0.00 | 0.099 | < | < | 24.00 |
| 26.12 | 2.21101 | 77.4 | 69.9 | 293.402 | 293.276 | 0.00 | 0.126 | < | < | 24.00 |
| 27.12 | 2.11009 | 77.3 | 70.3 | 298.317 | 298.197 | 0.00 | 0.120 | < | < | 24.00 |
| 28.12 | 2.15551 | 78.4 | 71.2 | 295.816 | 295.765 | 0.00 | -0.098 | < | < | 24.00 |
| 29.12 | 2.15106 | 78.6 | 71.5 | 301.618 | 301.528 | 0.00 | 0.090 | < | < | 24.00 |
| 30.12 | 2.11537 | 78.7 | 71.7 | 299.656 | 299.577 | 0.00 | 0.079 | < | < | 24.00 |
| 31.12 | 2.28408 | 80.2 | 72.6 | 299.003 | 298.939 | 0.00 | 0.064 | < | < | 24.00 |
| 01.01 | 2.18147 | 84.8 | 77.4 | 295.677 | 295.621 | 0.00 | -0.011 | < | < | 24.00 |
| 02.01 | 2.26667 | 87.1 | 79.3 | 289.126 | 288.736 | 0.00 | -0.095 | < | < | 24.00 |
| 03.01 | 2.14341 | 81.3 | 74.0 | 290.466 | 290.249 | 0.00 | 0.217 | < | < | 24.00 |
| 04.01 | 1.95716 | 76.7 | 69.8 | 283.476 | 283.375 | 0.00 | 0.101 | < | < | 24.00 |
| 05.01 | 2.06056 | 78.3 | 71.3 | 294.008 | 293.898 | 0.00 | 0.110 | < | < | 24.00 |
| 06.01 | 2.03258 | 79.9 | 73.1 | 298.325 | 298.252 | 0.00 | 0.073 | < | < | 24.00 |
| 07.01 | 2.12927 | 79.6 | 72.4 | 295.957 | 295.889 | 0.00 | 0.068 | < | < | 24.00 |
| 08.01 | 2.02862 | 78.9 | 72.0 | 294.406 | 294.358 | 0.00 | 0.048 | < | < | 24.00 |
| 09.01 | 2.30970 | 83.5 | 75.6 | 293.653 | 293.607 | 0.00 | 0.046 | < | < | 24.00 |
| 10.01 | 2.18379 | 79.9 | 72.4 | 288.885 | 288.804 | 0.00 | 0.081 | < | < | 24.00 |
| 11.01 | 2.19090 | 80.8 | 73.3 | 289.438 | 289.345 | 0.00 | 0.093 | < | < | 24.00 |
| 12.01 | 2.25754 | 76.8 | 68.8 | 282.312 | 282.236 | 0.00 | 0.076 | < | < | 24.00 |
| 13.01 | 2.30733 | 83.2 | 75.4 | 295.190 | 295.096 | 0.00 | 0.094 | < | < | 24.00 |
| 14.01 | 2.26369 | 85.2 | 77.5 | 295.364 | 295.300 | 0.00 | 0.064 | < | < | 24.00 |
| 15.01 | 2.30138 | 83.7 | 75.9 | 293.406 | 293.327 | 0.00 | 0.079 | < | < | 24.00 |
| 16.01 | 2.49401 | 91.7 | 83.4 | 297.463 | 297.396 | 0.00 | 0.067 | < | < | 24.00 |
| Итого | 80.64279 | 80.0' | 72.6' | 10912.243 | 10906.912 | 0.00 | -0.222 | 5.553 | | 888.00 |

Тотч.пер. = Tнар + Tmin + Tmax + Tdelta_t<мин + Тэл.пит + Тпроч.ав.
 888.00ч = 888.00ч + 0.00ч + 0.00ч + 0.00ч + 0.00ч + 0.00ч

| Т/С Отопление нарастающим итогом | Qтеп [Гкал] | Gпод [тонн] | Gобр [тонн] | Gп [тонн] | Tнар [час] |
|-------------------------------------|----------------|----------------|----------------|--------------|---------------|
| 17-01-26 00:00 | 6529.88273 | 857385.610 | 856929.189 | 84.03 | 79971.84 |
| 11-12-25 00:00 | 6449.23994 | 846473.367 | 846022.277 | 84.03 | 79083.84 |

Расшифровка ошибок:
 (<) параметр < min
 (>) параметр > max
 (X) обрыв датчика
 (T) delta_t < min
 (R) перезапуск

| | | | | | | |
|-------|----------|-----------|-----------|------|--------|--|
| Итого | 80.64279 | 10912.243 | 10906.912 | 0.00 | 888.00 | (С) коррекц. часов (#) электропитание |
|-------|----------|-----------|-----------|------|--------|--|

Тобщ = 888.00ч

Обновление 2.39 21-03-16 16ч НС-А-2.37 / НС-А-2.36 Q=G1 (Н1-Н2)

19.01.26 Подпись _____

МЕСЯЧНЫЙ ПРОТОКОЛ УЧЕТА ТЕПЛОВОЙ ЭНЕРГИИ И ТЕПЛОНОСИТЕЛЯ ЗА 12 мес 25 г.

Название потребителя _____ Абонент _____
 Адрес потребителя Любы Новоселовой 12А Телефон _____
 Ответственное лицо _____

Вычислитель ТС-201-0-2-1 Сер.ном. 32476 Расход под 0.100.. 25.000 м3/ч Ду 50 мм
 Отчетное число месяца 11 Отчетное время 00:00 Расход обр 0.100.. 25.000 м3/ч Ду 50 мм
 Расход п ротор 10.00 л/имп Ду 25 мм

| Дата | Qтеп [Гкал] | tпод [оС] | tобр [оС] | Gпод [тонн] | Gобр [тонн] | Gп [тонн] | Gпод-Gобр [тонн] | Tнар [час] |
|--------------|------------------|--------------|--------------|-----------------|-----------------|--------------|---------------------|---------------|
| 11.12 | 3.53902 | 75.2 | 45.8 | 120.618 | 120.502 | 0.00 | 0.116 | 24.00 |
| 12.12 | 3.41919 | 75.4 | 46.4 | 117.545 | 117.433 | 0.00 | 0.112 | 24.00 |
| 13.12 | 4.75996 | 77.9 | 49.3 | 166.233 | 166.079 | 0.00 | 0.154 | 24.00 |
| 14.12 | 5.04983 | 78.2 | 50.7 | 183.747 | 183.554 | 0.00 | 0.193 | 24.00 |
| 15.12 | 5.00656 | 78.2 | 51.6 | 187.808 | 187.591 | 0.00 | 0.217 | 24.00 |
| 16.12 | 4.15435 | 77.8 | 47.3 | 136.301 | 136.203 | 0.00 | 0.098 | 24.00 |
| 17.12 | 3.52152 | 76.1 | 45.5 | 115.180 | 115.092 | 0.00 | 0.088 | 24.00 |
| 18.12 | 3.72694 | 76.2 | 46.5 | 125.659 | 125.549 | 0.00 | 0.110 | 24.00 |
| 19.12 | 3.81602 | 76.2 | 47.3 | 132.333 | 132.207 | 0.00 | 0.126 | 24.00 |
| 20.12 | 4.01232 | 76.2 | 47.3 | 138.913 | 138.778 | 0.00 | 0.135 | 24.00 |
| 21.12 | 3.76767 | 76.2 | 46.7 | 127.874 | 127.759 | 0.00 | 0.115 | 24.00 |
| 22.12 | 3.86529 | 76.5 | 47.4 | 132.964 | 132.841 | 0.00 | 0.123 | 24.00 |
| 23.12 | 6.07158 | 88.5 | 56.9 | 192.286 | 192.229 | 0.00 | 0.057 | 24.00 |
| 24.12 | 6.36489 | 88.5 | 58.0 | 208.439 | 208.305 | 0.00 | 0.134 | 24.00 |
| 25.12 | 4.46646 | 74.9 | 50.2 | 181.316 | 181.040 | 0.00 | 0.276 | 24.00 |
| 26.12 | 3.81051 | 76.5 | 47.2 | 129.884 | 129.768 | 0.02 | 0.116 | 24.00 |
| 27.12 | 3.99027 | 77.1 | 47.3 | 133.900 | 133.790 | 0.00 | 0.110 | 24.00 |
| 28.12 | 4.23199 | 78.0 | 47.1 | 136.938 | 136.847 | 0.00 | 0.091 | 24.00 |
| 29.12 | 4.35880 | 78.2 | 47.8 | 143.478 | 143.376 | 0.00 | 0.102 | 24.00 |
| 30.12 | 4.60444 | 78.2 | 48.5 | 155.175 | 155.052 | 0.00 | 0.123 | 24.00 |
| 31.12 | 5.04681 | 80.9 | 49.4 | 160.457 | 160.380 | 0.00 | 0.077 | 24.00 |
| 01.01 | 5.61076 | 85.2 | 54.3 | 182.060 | 181.984 | 0.00 | 0.076 | 24.00 |
| 02.01 | 5.84243 | 86.2 | 55.6 | 191.247 | 191.169 | 0.00 | 0.078 | 24.00 |
| 03.01 | 4.68423 | 79.4 | 49.6 | 157.475 | 157.360 | 0.00 | 0.115 | 24.00 |
| 04.01 | 4.26451 | 76.4 | 48.4 | 152.171 | 152.010 | 0.00 | 0.161 | 24.00 |
| 05.01 | 4.47545 | 78.1 | 48.8 | 153.076 | 152.947 | 0.00 | 0.129 | 24.00 |
| 06.01 | 4.82204 | 80.0 | 49.2 | 156.485 | 156.394 | 0.00 | 0.091 | 24.00 |
| 07.01 | 4.74841 | 78.2 | 50.1 | 169.286 | 169.120 | 0.00 | 0.166 | 24.00 |
| 08.01 | 4.98914 | 79.5 | 50.8 | 174.075 | 173.927 | 0.00 | 0.148 | 24.00 |
| 09.01 | 5.40670 | 83.4 | 52.6 | 175.398 | 175.315 | 0.00 | 0.083 | 24.00 |
| 10.01 | 4.55835 | 78.9 | 48.5 | 150.182 | 150.080 | 0.00 | 0.102 | 24.00 |
| 11.01 | 4.91606 | 79.6 | 50.1 | 167.034 | 166.907 | 0.00 | 0.127 | 24.00 |
| 12.01 | 4.53492 | 76.7 | 50.1 | 171.099 | 170.890 | 0.00 | 0.209 | 24.00 |
| 13.01 | 5.09251 | 84.7 | 51.5 | 153.225 | 153.191 | 0.00 | 0.034 | 24.00 |
| 14.01 | 5.09105 | 83.2 | 51.5 | 160.820 | 160.752 | 0.00 | 0.068 | 24.00 |
| 15.01 | 5.30086 | 85.4 | 52.3 | 160.220 | 160.163 | 0.00 | 0.057 | 24.00 |
| 16.01 | 5.98229 | 91.8 | 56.0 | 167.057 | 166.982 | 0.00 | 0.075 | 24.00 |
| Итого | 171.90413 | 80.0' | 50.2' | 5767.958 | 5763.566 | 0.02 | 4.392 | 888.00 |

Тотч.пер. = Tнар + Tмин + Tмакс + Tdelta_t<мин + Tэл.пит + Tпроч.ав.
 888.00ч = 888.00ч + 0.00ч + 0.00ч + 0.00ч + 0.00ч + 0.00ч

| Т/С Ввод т/сети нарастающим итогом | Qтеп [Гкал] | Gпод [тонн] | Gобр [тонн] | Gп [тонн] | Tнар [час] |
|---------------------------------------|----------------|----------------|----------------|--------------|---------------|
| 17-01-26 00:00 | 4060.31811 | 196531.461 | 196144.977 | 8.78 | 32898.18 |
| 11-12-25 00:00 | 3888.41398 | 190763.503 | 190381.411 | 8.76 | 32010.18 |

Расшифровка ошибок:
 (<) параметр < min
 (>) параметр > max
 (X) обрыв датчика
 (T) delta_t < min
 (R) перезапуск

| | | | | | | |
|-------|-----------|----------|----------|------|--------|--|
| Итого | 171.90413 | 5767.958 | 5763.566 | 0.02 | 888.00 | (С) коррекц. часов (#) электропитание |
|-------|-----------|----------|----------|------|--------|--|

Тобщ = 888.00ч

Обновление 2.49 09-02-22 11ч НС-М-2.49 / НС-А-2.36 Q=G1 (Н1-Н2)

19.01.26 Подпись _____

МЕСЯЧНЫЙ ПРОТОКОЛ УЧЕТА ТЕПЛОВОЙ ЭНЕРГИИ И ТЕПЛОНОСИТЕЛЯ ЗА 12 мес 25 г.

Название потребителя _____ Абонент _____
 Адрес потребителя Маршала Бирюзова 2А Телефон _____
 Ответственное лицо _____

Вычислитель ТС-201-0-2-1-1 Сер.ном. 132935 Расход под 0.64.. 160.00 м3/ч Ду 100 мм
 Отчетное число месяца 11 Отчетное время 00:00 Расход обр 0.64.. 160.00 м3/ч Ду 100 мм
 Расход п ротор 10.00 л/имп Ду 25 мм

| Дата | Qтеп [Гкал] | tпод [оС] | tобр [оС] | Gпод [тонн] | Gобр [тонн] | Gп [тонн] | Gпод-Gобр [тонн] | Tнар [час] |
|-------|----------------|--------------|--------------|----------------|----------------|--------------|---------------------|---------------|
| 11.12 | 20.5780 | 106.7 | 93.4 | 1551.34 | 1548.81 | 0.00 | 2.53 | 24.00 |
| 12.12 | 20.0404 | 106.2 | 93.0 | 1511.04 | 1508.61 | 0.00 | 2.43 | 24.00 |
| 13.12 | 30.4326 | 112.4 | 95.4 | 1790.22 | 1789.17 | 0.00 | 1.05 | 24.00 |
| 14.12 | 29.5182 | 109.3 | 92.6 | 1768.44 | 1767.46 | 0.00 | 0.98 | 24.00 |
| 15.12 | 25.5065 | 109.1 | 94.3 | 1728.92 | 1727.89 | 0.00 | 1.03 | 24.00 |
| 16.12 | 20.1514 | 109.5 | 96.9 | 1601.10 | 1598.84 | 0.00 | 2.26 | 24.00 |
| 17.12 | 19.5562 | 108.4 | 94.1 | 1365.38 | 1363.81 | 0.00 | 1.57 | 24.00 |
| 18.12 | 19.2811 | 105.4 | 95.0 | 1856.61 | 1852.36 | 0.00 | 4.25 | 24.00 |
| 19.12 | 18.4074 | 102.0 | 92.0 | 1837.23 | 1832.68 | 0.00 | 4.55 | 24.00 |
| 20.12 | 18.8899 | 102.3 | 92.0 | 1840.19 | 1836.45 | 0.00 | 3.74 | 24.00 |
| 21.12 | 19.1800 | 107.9 | 96.6 | 1689.79 | 1687.20 | 0.00 | 2.59 | 24.00 |
| 22.12 | 21.7934 | 104.9 | 91.7 | 1655.12 | 1652.72 | 0.00 | 2.40 | 24.00 |
| 23.12 | 34.6143 | 134.0 | 114.3 | 1759.67 | 1757.96 | 0.00 | 1.71 | 24.00 |
| 24.12 | 33.8688 | > 135.8 | 116.0 | 1715.65 | 1713.83 | 0.00 | 1.82 | 23.97 |
| 25.12 | 26.6946 | 106.0 | 91.9 | 1888.60 | 1886.31 | 0.00 | 2.29 | 24.00 |
| 26.12 | 25.4859 | 102.3 | 88.5 | 1854.05 | 1850.86 | 0.00 | 3.19 | 24.00 |
| 27.12 | 25.2148 | 100.0 | 87.7 | 2056.34 | 2052.14 | 0.00 | 4.20 | 24.00 |
| 28.12 | 25.0150 | 101.5 | 88.6 | 1938.51 | 1935.26 | 0.00 | 3.25 | 24.00 |
| 29.12 | 26.0301 | 103.2 | 89.9 | 1956.37 | 1952.96 | 0.00 | 3.41 | 24.00 |
| 30.12 | 26.4651 | 104.2 | 90.4 | 1919.40 | 1916.48 | 0.00 | 2.92 | 24.00 |
| 31.12 | 31.2664 | 113.3 | 96.5 | 1861.67 | 1860.19 | 0.00 | 1.48 | 24.00 |
| 01.01 | 36.4011 | 131.1 | 109.9 | 1718.24 | 1716.06 | 0.00 | 2.18 | 24.00 |
| 02.01 | 36.0551 | 128.8 | 107.8 | 1716.88 | 1714.55 | 0.00 | 2.33 | 24.00 |
| 03.01 | 27.9836 | 107.6 | 92.6 | 1866.22 | 1864.34 | 0.00 | 1.88 | 24.00 |
| 04.01 | 24.3330 | 99.4 | 87.5 | 2038.01 | 2033.70 | 0.00 | 4.31 | 24.00 |
| 05.01 | 26.6782 | 104.0 | 90.3 | 1958.19 | 1954.94 | 0.00 | 3.25 | 24.00 |
| 06.01 | 29.4571 | 110.8 | 94.8 | 1841.75 | 1840.44 | 0.00 | 1.31 | 24.00 |
| 07.01 | 28.1824 | 108.1 | 93.1 | 1872.17 | 1870.21 | 0.00 | 1.96 | 24.00 |
| 08.01 | 30.2913 | 112.7 | 96.5 | 1872.81 | 1871.43 | 0.00 | 1.38 | 24.00 |
| 09.01 | 33.5249 | 120.2 | 101.3 | 1774.12 | 1772.70 | 0.00 | 1.42 | 24.00 |
| 10.01 | 27.3842 | 105.7 | 91.3 | 1898.38 | 1896.14 | 0.00 | 2.24 | 24.00 |
| 11.01 | 30.1043 | 111.1 | 95.2 | 1892.31 | 1890.93 | 0.00 | 1.38 | 24.00 |
| 12.01 | 27.1762 | 104.7 | 90.4 | 1904.40 | 1902.34 | 0.00 | 2.06 | 24.00 |
| 13.01 | 31.6805 | 115.6 | 98.0 | 1798.26 | 1797.02 | 0.00 | 1.24 | 24.00 |
| 14.01 | 30.3844 | 112.9 | 96.1 | 1815.09 | 1813.72 | 0.00 | 1.37 | 24.00 |
| 15.01 | 30.6918 | 115.5 | 98.6 | 1810.54 | 1808.79 | 0.00 | 1.75 | 24.00 |
| 16.01 | T 33.7904 | 135.7 | 113.0 | < 1491.74 | < 1484.78 | 0.00 | -0.38 | 7.34 |
| Итого | 1002.1086 | 110.7' | 95.6' | 66414.75 | 66324.08 | 0.00 | -0.38 | 91.05 |

Тотч.пер. = Tнар + Tмин + Tмакс + Tdelta_t<мин + Tэл.пит + Tпроч.ав.
 888.00ч = 887.50ч + 0.43ч + 0.00ч + 0.02ч + 0.00ч + 0.05ч

| Т/С Ввод т/сети нарастающим итогом | Qтеп [Гкал] | Gпод [тонн] | Gобр [тонн] | Gп [тонн] | Tнар [час] |
|---------------------------------------|----------------|----------------|----------------|--------------|---------------|
| 17-01-26 00:00 | 55294.1458 | 4285257.41 | 4273363.83 | 62.33 | 95195.30 |
| 11-12-25 00:00 | 54292.0372 | 4218842.66 | 4207039.75 | 62.33 | 94307.80 |

Расшифровка ошибок:
 (<) параметр < min
 (>) параметр > max
 (X) обрыв датчика
 (T) delta_t < min
 (R) перезапуск

| | | | | | | |
|-------|-----------|----------|----------|------|--------|--|
| Итого | 1002.1086 | 66414.75 | 66324.08 | 0.00 | 887.50 | (С) коррекц. часов (#) электропитание |
|-------|-----------|----------|----------|------|--------|--|

Тобщ = 888.00ч

Обновление 2.49 12-11-13 10ч НС-М-2.49 / НС-А-2.36 Q=G1 (Н1-Н2)

19.01.26 Подпись _____

МЕСЯЧНЫЙ ПРОТОКОЛ УЧЕТА ТЕПЛОВОЙ ЭНЕРГИИ И ТЕПЛОНОСИТЕЛЯ ЗА 12 мес 25 г.

Название потребителя _____ Абонент _____
 Адрес потребителя Маршала Бирюзова 14 Телефон _____
 Ответственное лицо _____

Вычислитель ТС-0200-2-2-1-1-0-Т Сер.ном. 221509 Расход под 0.050.. 12.500 м3/ч Ду 40 мм
 Отчетное число месяца 11 Отчетное время 00:00 Расход обр 0.050.. 12.500 м3/ч Ду 40 мм

| Дата | Qтеп [Гкал] | tпод [оС] | tобр [оС] | Gпод [тонн] | Gобр [тонн] | Gпод-Gобр [тонн] | рпод [ат] | робр [ат] | Tнар [час] |
|-------|----------------|--------------|--------------|----------------|----------------|---------------------|--------------|--------------|---------------|
| 11.12 | 2.35968 | 76.9 | 53.4 | 100.450 | 99.992 | 0.458 | 5.7 | 4.4 | 24.00 |
| 12.12 | 2.42081 | 78.1 | 54.1 | 101.147 | 100.683 | 0.464 | 5.6 | 4.4 | 24.00 |
| 13.12 | 2.73622 | 84.0 | 55.5 | 95.975 | 95.514 | 0.461 | 5.5 | 4.4 | 24.00 |
| 14.12 | 2.78459 | 84.7 | 55.4 | 94.682 | 94.217 | 0.465 | 5.5 | 4.5 | 24.00 |
| 15.12 | 2.91531 | 86.6 | 56.4 | 96.190 | 95.710 | 0.480 | 5.5 | 4.5 | 24.00 |
| 16.12 | 2.67303 | 81.8 | 55.2 | 100.236 | 99.754 | 0.482 | 5.6 | 4.5 | 24.00 |
| 17.12 | 2.55486 | 79.2 | 55.0 | 105.192 | 104.697 | 0.495 | 5.8 | 4.5 | 24.00 |
| 18.12 | 2.42444 | 77.6 | 53.0 | 98.608 | 98.146 | 0.462 | 5.6 | 4.5 | 24.00 |
| 19.12 | 2.30133 | 76.0 | 51.1 | 92.219 | 91.795 | 0.424 | 5.5 | 4.5 | 24.00 |
| 20.12 | 2.27896 | 75.7 | 50.0 | 88.432 | 88.034 | 0.398 | 5.4 | 4.4 | R# 24.00 |
| 21.12 | 2.42039 | 78.4 | 52.0 | 91.944 | 91.517 | 0.427 | 5.5 | 4.4 | 24.00 |
| 22.12 | 2.47141 | 78.8 | 52.7 | 94.626 | 94.192 | 0.434 | 5.5 | 4.4 | 24.00 |
| 23.12 | 3.00018 | 86.4 | 56.3 | 99.583 | 99.108 | 0.475 | 5.7 | 4.5 | 24.00 |
| 24.12 | 3.20124 | 89.5 | 57.6 | 100.156 | 99.676 | 0.480 | 5.7 | 4.5 | 24.00 |
| 25.12 | 2.85023 | 83.6 | 55.7 | 102.037 | 101.559 | 0.478 | 5.7 | 4.5 | 24.00 |
| 26.12 | 2.57086 | 78.7 | 53.9 | 103.585 | 103.104 | 0.481 | 5.7 | 4.5 | 24.00 |
| 27.12 | 2.54377 | 78.6 | 53.6 | 101.704 | 101.223 | 0.481 | 5.7 | 4.5 | 24.00 |
| 28.12 | 2.68758 | 81.6 | 55.3 | 102.122 | 101.637 | 0.485 | 5.7 | 4.5 | 24.00 |
| 29.12 | 2.63119 | 80.8 | 54.8 | 101.017 | 100.544 | 0.473 | 5.7 | 4.5 | 24.00 |
| 30.12 | 2.66982 | 81.5 | 54.9 | 100.330 | 99.859 | 0.471 | 5.6 | 4.5 | 24.00 |
| 31.12 | 2.81293 | 84.0 | 55.8 | 99.862 | 99.387 | 0.475 | 5.6 | 4.5 | 24.00 |
| 01.01 | 3.29942 | 92.1 | 59.9 | 102.511 | 102.028 | 0.483 | 5.7 | 4.5 | 24.00 |
| 02.01 | 3.37207 | 93.4 | 60.4 | 102.151 | 101.703 | 0.448 | 5.7 | 4.5 | 24.00 |
| 03.01 | 2.86403 | 84.8 | 57.0 | 103.200 | 102.778 | 0.422 | 5.7 | 4.5 | 24.00 |
| 04.01 | 2.56009 | 79.3 | 54.0 | 101.091 | 100.703 | 0.388 | 5.7 | 4.5 | 24.00 |
| 05.01 | 2.62024 | 80.3 | 54.1 | 99.873 | 99.479 | 0.394 | 5.7 | 4.5 | 24.00 |
| 06.01 | 2.87023 | 84.4 | 56.2 | 101.646 | 101.229 | 0.417 | 5.7 | 4.5 | 24.00 |
| 07.01 | 2.76892 | 82.8 | 55.4 | 101.127 | 100.715 | 0.412 | 5.7 | 4.5 | 24.00 |
| 08.01 | 2.79093 | 83.1 | 55.4 | 100.647 | 100.232 | 0.415 | 5.7 | 4.5 | 24.00 |
| 09.01 | 3.07031 | 88.0 | 58.0 | 102.098 | 101.670 | 0.428 | 5.7 | 4.5 | 24.00 |
| 10.01 | 2.78291 | 82.9 | 55.7 | 102.134 | 101.685 | 0.449 | 5.7 | 4.5 | 24.00 |
| 11.01 | 2.78156 | 82.8 | 55.3 | 100.819 | 100.343 | 0.476 | 5.7 | 4.5 | 24.00 |
| 12.01 | 2.73247 | 82.0 | 55.1 | 101.440 | 100.960 | 0.480 | 5.7 | 4.5 | 24.00 |
| 13.01 | 3.08898 | 88.1 | 58.1 | 102.783 | 102.283 | 0.500 | 5.7 | 4.5 | 24.00 |
| 14.01 | 2.97676 | 86.4 | 57.5 | 102.948 | 102.443 | 0.505 | 5.7 | 4.5 | 24.00 |
| 15.01 | 2.84470 | 83.8 | 55.5 | 100.073 | 99.586 | 0.487 | 5.7 | 4.5 | R# 24.00 |
| 16.01 | T 3.16867 | 88.8 | 57.7 < | 100.793 < | 100.290 | 0.503 | 5.7 | 4.5 | R# 23.54 |
| Итого | 101.90112 | 82.9 | 55.3 | 3695.431 | 3678.475 | 16.956 | 5.7 | 4.5 | 887.54 |

Тотч.пер. = Tнар + Tмакс + Tdelta_t<мин + Tэл.пит + Tпроч.ав. Tmin = 0.07ч
 888.00ч = 887.54ч + 0.00ч + 0.09ч + 0.25ч + 0.05ч

| Т/С Отопление нарастающим итогом | Qтеп [Гкал] | Gпод [тонн] | Gобр [тонн] | Tнар [час] |
|-------------------------------------|----------------|----------------|----------------|---------------|
| 17-01-26 00:00 | 1719.94763 | 70690.525 | 70295.046 | 17692.64 |
| 11-12-25 00:00 | 1618.04651 | 66995.094 | 66616.571 | 16805.10 |

Расшифровка ошибок:
 (<) параметр < min
 (>) параметр > max
 (X) обрыв датчика
 (T) delta_t < min
 (R) перезапуск

| | | | | |
|-------|-----------|----------|----------|--------|
| Итого | 101.90112 | 3695.431 | 3678.475 | 887.54 |
|-------|-----------|----------|----------|--------|

(С) коррекц. часов
 (#) электропитание

Тобщ = 888.00ч

ВИС.Т.НС-М-2.59 / НС-А-2.57 CRC 45297 HcSet 2.59 21-09-22 08ч

Q=G1 (H1-H2)

19.01.26 Подпись _____

НОМЕР АБОНЕНТА: _____
 АДРЕС УСТАНОВКИ: Средняя 24

Подача: П

Система 1

ТЭМ-104 Зав.Н 1561681

G1 ДУ80 0.400 - 160.0 м3/ч

G2 ДУ80 0.400 - 160.0 м3/ч

Q = M1(tn - to)

ВЕДОМОСТЬ УЧЕТА ПАРАМЕТРОВ ТЕПЛОПОТРЕБЛЕНИЯ
 за период с 11/12/25 по 10/01/26

| ДАТА дд/мм/гг | Q Гкал | M1 т | M2 т | M1-M2 т | Tn С | To С | Pn МПа | Ro МПа | Tнар,ч час |
|------------------|--------------|----------------|----------------|--------------|--------------|--------------|-------------|-------------|---------------|
| 11/12/25 | 21.98 | 990.7 | 989.8 | +1.0 | 72.08 | 49.98 | 0.91 | 0.51 | 24.00 |
| 12/12/25 | 20.95 | 948.9 | 948.2 | +0.7 | 72.53 | 50.53 | 0.91 | 0.51 | 24.00 |
| 13/12/25 | 27.04 | 1356.3 | 1354.1 | +2.2 | 74.95 | 55.10 | 0.91 | 0.51 | 24.00 |
| 14/12/25 | 27.84 | 1396.8 | 1394.3 | +2.5 | 75.16 | 55.32 | 0.91 | 0.51 | 24.00 |
| 15/12/25 | 27.11 | 1362.3 | 1359.6 | +2.7 | 75.14 | 55.33 | 0.91 | 0.51 | 24.00 |
| 16/12/25 | 24.40 | 1104.4 | 1102.1 | +2.3 | 74.58 | 52.57 | 0.91 | 0.51 | 24.00 |
| 17/12/25 | 21.40 | 904.5 | 902.8 | +1.7 | 72.99 | 49.41 | 0.91 | 0.51 | 24.00 |
| ИТОГО: | 170.7 | 8063.8 | 8050.8 | +13.0 | 74.11 | 53.02 | 0.91 | 0.51 | 168.0 |
| 18/12/25 | 22.30 | 972.0 | 970.7 | +1.3 | 73.08 | 50.22 | 0.91 | 0.51 | 24.00 |
| 19/12/25 | 22.45 | 979.4 | 978.4 | +1.0 | 73.04 | 50.20 | 0.91 | 0.51 | 24.00 |
| 20/12/25 | 23.42 | 1054.2 | 1053.2 | +1.1 | 73.10 | 50.96 | 0.91 | 0.51 | 24.00 |
| 21/12/25 | 23.09 | 1022.1 | 1021.6 | +0.6 | 73.08 | 50.58 | 0.91 | 0.51 | 24.00 |
| 22/12/25 | 23.20 | 1020.7 | 1020.8 | -0.1 | 73.64 | 51.00 | 0.91 | 0.51 | 24.00 |
| 23/12/25 | 32.14 | 1253.7 | 1255.1 | -1.3 | 86.07 | 60.54 | 0.91 | 0.51 | 24.00 |
| 24/12/25 | 31.07 | 1300.9 | 1304.0 | -3.1 | 83.66 | 59.89 | 0.91 | 0.51 | 24.00 |
| ИТОГО: | 177.7 | 7603.0 | 7603.7 | -0.6 | 77.11 | 53.83 | 0.91 | 0.51 | 168.0 |
| 25/12/25 | 24.48 | 1325.8 | 1330.0 | -4.2 | 71.92 | 53.54 | 0.91 | 0.51 | 24.00 |
| 26/12/25 | 22.55 | 949.0 | 952.0 | -3.0 | 73.36 | 49.68 | 0.91 | 0.51 | 24.00 |
| 27/12/25 | 23.18 | 943.3 | 947.2 | -3.9 | 74.22 | 49.73 | 0.91 | 0.51 | 24.00 |
| 28/12/25 | 24.54 | 1011.7 | 1016.1 | -4.4 | 75.01 | 50.84 | 0.91 | 0.51 | 24.00 |
| 29/12/25 | 24.73 | 1041.4 | 1046.2 | -4.8 | 75.21 | 51.56 | 0.91 | 0.51 | 24.00 |
| 30/12/25 | 25.50 | 1158.8 | 1164.8 | -6.0 | 75.12 | 53.21 | 0.91 | 0.51 | 24.00 |
| 31/12/25 | 27.95 | 1236.0 | 1243.5 | -7.5 | 78.24 | 55.71 | 0.91 | 0.51 | 24.00 |
| ИТОГО: | 172.9 | 7665.9 | 7699.7 | -33.8 | 74.74 | 52.27 | 0.91 | 0.51 | 168.0 |
| 01/01/26 | 29.20 | 1255.7 | 1264.7 | -9.0 | 82.22 | 59.06 | 0.91 | 0.51 | 24.00 |
| 02/01/26 | 29.72 | 1263.9 | 1274.0 | -10.1 | 82.67 | 59.25 | 0.91 | 0.51 | 24.00 |
| 03/01/26 | 26.34 | 1300.8 | 1311.3 | -10.5 | 75.79 | 55.64 | 0.91 | 0.51 | 24.00 |
| 04/01/26 | 24.40 | 1186.1 | 1195.7 | -9.5 | 73.47 | 52.99 | 0.91 | 0.51 | 24.00 |
| 05/01/26 | 25.53 | 1171.3 | 1180.8 | -9.5 | 75.20 | 53.50 | 0.91 | 0.51 | 24.00 |
| 06/01/26 | 26.65 | 1170.0 | 1178.5 | -8.6 | 77.17 | 54.48 | 0.91 | 0.51 | 24.00 |
| 07/01/26 | 26.20 | 1328.5 | 1335.5 | -7.1 | 74.88 | 55.25 | 0.91 | 0.51 | 24.00 |
| ИТОГО: | 188.0 | 8676.2 | 8740.5 | -64.3 | 77.37 | 55.79 | 0.91 | 0.51 | 168.0 |
| 08/01/26 | 27.53 | 1345.1 | 1348.2 | -3.1 | 76.81 | 56.43 | 0.91 | 0.51 | 24.00 |
| 09/01/26 | 29.15 | 1301.9 | 1302.1 | -0.2 | 80.10 | 57.81 | 0.91 | 0.51 | 24.00 |
| 10/01/26 | 26.25 | 1191.3 | 1190.2 | +1.1 | 76.07 | 54.13 | 0.91 | 0.51 | 24.00 |
| ИТОГО: | 82.9 | 3838.4 | 3840.5 | -2.1 | 77.70 | 56.19 | 0.91 | 0.51 | 72.0 |
| ИТОГО: | 792.3 | 35847.4 | 35935.2 | +18.0 | 76.05 | 54.05 | 0.91 | 0.51 | 744.0 |
| | | -87.9 | -105.9 | 22.01 | | | | | |

Общее время работы системы, ч = Tнар. + Tmin + Tmax + Tdtmin + Tгн.
 744.00 744.00 0.00 0.00 0.00 0.00

Количество тепла, Гкал Q = Qт/с + Qmin + Qmax + Qох. + Qт/в + Qсан.ут.
 = 792.3 + _____ + _____ + _____ + _____ + _____

| Показания интеграторов на | 10/12/25 24:00 | 10/01/26 24:00 | Разность | 19/01/26 09:07 |
|--|----------------|----------------|----------|----------------|
| Расход тепла Q, Гкал | 51238.50 | 52030.84 | 792.34 | 52277.58 |
| Расход теплоносителя M1, т | 2665869.4 | 2701716.8 | 35847.4 | 2711531.9 |
| Расход теплоносителя M2, т | 2693519.7 | 2729455.0 | 35935.2 | 2739247.4 |
| Время наработки Tнар, ч | 80997.86 | 81741.86 | 744.00 | 81942.99 |
| Время неработы Tнер = Tmax + Tmin + Tdt + Tгн, ч | | | 0.00 | |

вЗА.10

Подпись потребителя _____

Подпись поставщика _____

НОМЕР АБОНЕНТА: _____ Подписка НСО
 АДРЕС УСТАНОВКИ: Садовая 24

Система 2

ТЭМ-104 Зав.Н 1561681

Kv = 10.00л/мин В ДУ25 0.350 - В.400 м3/ч

Q = M(ho - hx)

ВЕДОМОСТЬ УЧЕТА ПАРАМЕТРОВ ТЕПЛОПОТРЕБЛЕНИЯ
 за период с 17/12/25 по 16/01/26

| ДАТА дд/мм/гг | Q Гкал | M т | To С | Tx С | Рo МПа | Рх МПа | Tнар,ч час |
|------------------|-----------|--------|---------|---------|-----------|-----------|---------------|
| 17/12/25 | 0.0012 | 0.030 | 50.37 | 10.00 | 0.91 | 0.51 | 24.00 |
| 18/12/25 | 0.0020 | 0.049 | 51.07 | 10.00 | 0.91 | 0.51 | 24.00 |
| 19/12/25 | 0.0008 | 0.020 | 50.39 | 10.00 | 0.91 | 0.51 | 24.00 |
| 20/12/25 | 0.0032 | 0.079 | 50.55 | 10.00 | 0.91 | 0.51 | 24.00 |
| 21/12/25 | 0.0012 | 0.030 | 50.15 | 10.00 | 0.91 | 0.51 | 24.00 |
| 22/12/25 | 0.0008 | 0.020 | 49.91 | 10.00 | 0.91 | 0.51 | 24.00 |
| 23/12/25 | 0.0000 | 0.000 | 60.47 | 10.00 | 0.91 | 0.51 | 24.00 |
| ИТОГО: | 0.009 | 0.23 | 50.52 | 10.00 | 0.91 | 0.51 | 168.0 |
| 24/12/25 | 0.0091 | 0.187 | 58.74 | 10.00 | 0.91 | 0.51 | 24.00 |
| 25/12/25 | 0.0048 | 0.109 | 54.06 | 10.00 | 0.91 | 0.51 | 24.00 |
| 26/12/25 | 0.0027 | 0.069 | 49.56 | 10.00 | 0.91 | 0.51 | 24.00 |
| 27/12/25 | 0.0007 | 0.020 | 47.29 | 10.00 | 0.91 | 0.51 | 24.00 |
| 28/12/25 | 0.0008 | 0.020 | 51.46 | 10.00 | 0.91 | 0.51 | 24.00 |
| 29/12/25 | 0.0004 | 0.010 | 51.16 | 10.00 | 0.91 | 0.51 | 24.00 |
| 30/12/25 | 0.0013 | 0.030 | 52.87 | 10.00 | 0.91 | 0.51 | 24.00 |
| ИТОГО: | 0.020 | 0.44 | 54.77 | 10.00 | 0.91 | 0.51 | 168.0 |
| 31/12/25 | 0.0000 | 0.000 | 55.69 | 10.00 | 0.91 | 0.51 | 24.00 |
| 01/01/26 | 0.0009 | 0.020 | 57.35 | 10.00 | 0.91 | 0.51 | 24.00 |
| 02/01/26 | 0.0019 | 0.039 | 58.47 | 10.00 | 0.91 | 0.51 | 24.00 |
| 03/01/26 | 0.0035 | 0.079 | 54.59 | 10.00 | 0.91 | 0.51 | 24.00 |
| 04/01/26 | 0.0004 | 0.010 | 52.59 | 10.00 | 0.91 | 0.51 | 24.00 |
| 05/01/26 | 0.0013 | 0.030 | 53.01 | 10.00 | 0.91 | 0.51 | 24.00 |
| 06/01/26 | 0.0004 | 0.010 | 53.66 | 10.00 | 0.91 | 0.51 | 24.00 |
| ИТОГО: | 0.008 | 0.19 | 55.29 | 10.00 | 0.91 | 0.51 | 168.0 |
| 07/01/26 | 0.0013 | 0.030 | 54.88 | 10.00 | 0.91 | 0.51 | 24.00 |
| 08/01/26 | 0.0004 | 0.010 | 54.87 | 10.00 | 0.91 | 0.51 | 24.00 |
| 09/01/26 | 0.0009 | 0.020 | 55.68 | 10.00 | 0.91 | 0.51 | 24.00 |
| 10/01/26 | 0.0022 | 0.049 | 54.53 | 10.00 | 0.91 | 0.51 | 24.00 |
| 11/01/26 | 0.0022 | 0.049 | 54.08 | 10.00 | 0.91 | 0.51 | 24.00 |
| 12/01/26 | 0.0004 | 0.010 | 53.37 | 10.00 | 0.91 | 0.51 | 24.00 |
| 13/01/26 | 0.0000 | 0.000 | 55.10 | 10.00 | 0.91 | 0.51 | 24.00 |
| ИТОГО: | 0.007 | 0.17 | 54.55 | 10.00 | 0.91 | 0.51 | 168.0 |
| 14/01/26 | 0.0014 | 0.030 | 56.06 | 10.00 | 0.91 | 0.51 | 24.00 |
| 15/01/26 | 0.0009 | 0.020 | 57.60 | 10.00 | 0.91 | 0.51 | 24.00 |
| 16/01/26 | 0.0009 | 0.020 | 57.01 | 10.00 | 0.91 | 0.51 | 24.00 |
| ИТОГО: | 0.003 | 0.07 | 56.77 | 10.00 | 0.91 | 0.51 | 72.0 |
| ИТОГО: | 0.048 | 1.10 | 54.07 | 10.00 | 0.91 | 0.51 | 744.0 |
| | | | 44.07 | | | | |

Общее время работы системы, ч = Tнар. + Tmin + Tmax + Tdtmin + Tгн.
 744.00 744.00 0.00 0.00 0.00 0.00

Количество тепла, Гкал Q = Qt/c + Qmin + Qmax + Qш. + Qt/в + Qсан.ут.
 = 0.048 + _____ + _____ + _____ + _____ + _____

| Показания интеграторов на | 16/12/25 24:00 | 16/01/26 24:00 | Разность | 19/01/26 09:13 |
|--|----------------|----------------|----------|----------------|
| Расход тепла Q, Гкал | 25.6524 | 25.7007 | 0.0483 | 25.7026 |
| Расход теплоносителя M, т | 617.265 | 618.360 | 1.095 | 618.400 |
| Время наработки Tнар, ч | 81141.82 | 81885.81 | 744.00 | 81943.03 |
| Время неработы Tнер = Tmax + Tmin + Tdt + Tгн, ч | | | 0.00 | |

вЗА.10

Подпись потребителя _____

Подпись поставщика _____

НОМЕР АБОНЕНТА: _____
 АДРЕС УСТАНОВКИ: Сардобая 24

Подписка НОД

Система 2

ТЭМ-104 Зав.№ 1561681

$K_v = 10.00 \text{ л/мин} \text{ } G \text{ } DУ25 \text{ } 0.350 - 8.400 \text{ м}^3/\text{ч}$

$Q = M(h_o - h_x)$

ВЕДОМОСТЬ УЧЕТА ПАРАМЕТРОВ ТЕПЛОПОТРЕБЛЕНИЯ
 за период с 11/12/25 по 10/01/26

| ДАТА дд/мм/гг | Q Гкал | M т | To С | Tx С | Рo МПа | Рх МПа | Tнар,ч час |
|------------------|-----------|--------|---------|---------|-----------|-----------|---------------|
| 11/12/25 | 0.0019 | 0.049 | 49.33 | 10.00 | 0.91 | 0.51 | 24.00 |
| 12/12/25 | 0.0012 | 0.030 | 48.99 | 10.00 | 0.91 | 0.51 | 24.00 |
| 13/12/25 | 0.0000 | 0.000 | 55.11 | 10.00 | 0.91 | 0.51 | 24.00 |
| 14/12/25 | 0.0071 | 0.158 | 55.02 | 10.00 | 0.91 | 0.51 | 24.00 |
| 15/12/25 | 0.0013 | 0.030 | 55.00 | 10.00 | 0.91 | 0.51 | 24.00 |
| 16/12/25 | 0.0029 | 0.069 | 51.58 | 10.00 | 0.91 | 0.51 | 24.00 |
| 17/12/25 | 0.0012 | 0.030 | 50.37 | 10.00 | 0.91 | 0.51 | 24.00 |
| ИТОГО: | 0.016 | 0.37 | 52.73 | 10.00 | 0.91 | 0.51 | 168.0 |
| 18/12/25 | 0.0020 | 0.049 | 51.07 | 10.00 | 0.91 | 0.51 | 24.00 |
| 19/12/25 | 0.0008 | 0.020 | 50.39 | 10.00 | 0.91 | 0.51 | 24.00 |
| 20/12/25 | 0.0032 | 0.079 | 50.55 | 10.00 | 0.91 | 0.51 | 24.00 |
| 21/12/25 | 0.0012 | 0.030 | 50.15 | 10.00 | 0.91 | 0.51 | 24.00 |
| 22/12/25 | 0.0008 | 0.020 | 49.91 | 10.00 | 0.91 | 0.51 | 24.00 |
| 23/12/25 | 0.0000 | 0.000 | 60.47 | 10.00 | 0.91 | 0.51 | 24.00 |
| 24/12/25 | 0.0091 | 0.187 | 58.74 | 10.00 | 0.91 | 0.51 | 24.00 |
| ИТОГО: | 0.017 | 0.38 | 54.53 | 10.00 | 0.91 | 0.51 | 168.0 |
| 25/12/25 | 0.0048 | 0.109 | 54.06 | 10.00 | 0.91 | 0.51 | 24.00 |
| 26/12/25 | 0.0027 | 0.069 | 49.56 | 10.00 | 0.91 | 0.51 | 24.00 |
| 27/12/25 | 0.0007 | 0.020 | 47.29 | 10.00 | 0.91 | 0.51 | 24.00 |
| 28/12/25 | 0.0008 | 0.020 | 51.46 | 10.00 | 0.91 | 0.51 | 24.00 |
| 29/12/25 | 0.0004 | 0.010 | 51.16 | 10.00 | 0.91 | 0.51 | 24.00 |
| 30/12/25 | 0.0013 | 0.030 | 52.87 | 10.00 | 0.91 | 0.51 | 24.00 |
| 31/12/25 | 0.0000 | 0.000 | 55.69 | 10.00 | 0.91 | 0.51 | 24.00 |
| ИТОГО: | 0.011 | 0.26 | 51.88 | 10.00 | 0.91 | 0.51 | 168.0 |
| 01/01/26 | 0.0009 | 0.020 | 57.35 | 10.00 | 0.91 | 0.51 | 24.00 |
| 02/01/26 | 0.0019 | 0.039 | 58.47 | 10.00 | 0.91 | 0.51 | 24.00 |
| 03/01/26 | 0.0035 | 0.079 | 54.59 | 10.00 | 0.91 | 0.51 | 24.00 |
| 04/01/26 | 0.0004 | 0.010 | 52.59 | 10.00 | 0.91 | 0.51 | 24.00 |
| 05/01/26 | 0.0013 | 0.030 | 53.01 | 10.00 | 0.91 | 0.51 | 24.00 |
| 06/01/26 | 0.0004 | 0.010 | 53.66 | 10.00 | 0.91 | 0.51 | 24.00 |
| 07/01/26 | 0.0013 | 0.030 | 54.88 | 10.00 | 0.91 | 0.51 | 24.00 |
| ИТОГО: | 0.010 | 0.22 | 55.24 | 10.00 | 0.91 | 0.51 | 168.0 |
| 08/01/26 | 0.0004 | 0.010 | 54.87 | 10.00 | 0.91 | 0.51 | 24.00 |
| 09/01/26 | 0.0009 | 0.020 | 55.68 | 10.00 | 0.91 | 0.51 | 24.00 |
| 10/01/26 | 0.0022 | 0.049 | 54.53 | 10.00 | 0.91 | 0.51 | 24.00 |
| ИТОГО: | 0.004 | 0.08 | 54.86 | 10.00 | 0.91 | 0.51 | 72.0 |
| ИТОГО: | 0.057 | 1.30 | 53.64 | 10.00 | 0.91 | 0.51 | 744.0 |

43.64

Общее время работы системы, ч = $T_{нар.} + T_{min} + T_{max} + T_{dtmin} + T_{тн.}$
 744.00 744.00 0.00 0.00 0.00 0.00

Количество тепла, Гкал $Q = Q_{г/с} + Q_{min} + Q_{max} + Q_{ощ.} + Q_{т/в} + Q_{сан.ут.}$
 = 0.057 + _____ + _____ + _____ + _____ + _____

| Показания интеграторов на | 10/12/25 24:00 | 10/01/26 24:00 | Разность | 19/01/26 09:11 |
|--|----------------|----------------|----------|----------------|
| Расход тепла Q, Гкал | 25.6380 | 25.6949 | 0.0569 | 25.7026 |
| Расход теплоносителя M, т | 616.929 | 618.232 | 1.303 | 618.400 |
| Время наработки Tнар, ч | 80997.81 | 81741.81 | 744.00 | 81942.99 |
| Время неработы Tнер = Tmax + Tmin + Tdt + Tтн, ч | | | 0.00 | |

вЗА.10

Подпись потребителя _____

Подпись поставщика _____

НОМЕР АБОНЕНТА: Садвал 24
 АДРЕС УСТАНОВКИ: Садвал 24

Подача: P Система 1

ТЭП-104 Зав.Н 1561681

G1 ДУ80 0,400 - 160,0 м3/ч

G2 ДУ80 0,400 - 160,0 м3/ч

Q = M1(tn - to)

ВЕДОМОСТЬ УЧЕТА ПАРАМЕТРОВ ТЕПЛОПОТРЕБЛЕНИЯ
 за период с 17/12/25 по 16/01/26

| ДАТА дд/мм/гг | Q Гкал | M1 т | M2 т | M1-M2 т | Tn С | To С | Pn МПа | Po МПа | Tнар,ч час |
|------------------|-----------|---------|---------|------------|---------|---------|-----------|-----------|---------------|
| 17/12/25 | 21.40 | 904.5 | 902.8 | +1.7 | 72.99 | 49.41 | 0.91 | 0.51 | 24.00 |
| 18/12/25 | 22.30 | 972.0 | 970.7 | +1.3 | 73.08 | 50.22 | 0.91 | 0.51 | 24.00 |
| 19/12/25 | 22.45 | 979.4 | 978.4 | +1.0 | 73.04 | 50.20 | 0.91 | 0.51 | 24.00 |
| 20/12/25 | 23.42 | 1054.2 | 1053.2 | +1.1 | 73.10 | 50.96 | 0.91 | 0.51 | 24.00 |
| 21/12/25 | 23.09 | 1022.1 | 1021.6 | +0.6 | 73.08 | 50.58 | 0.91 | 0.51 | 24.00 |
| 22/12/25 | 23.20 | 1020.7 | 1020.8 | -0.1 | 73.64 | 51.00 | 0.91 | 0.51 | 24.00 |
| 23/12/25 | 32.14 | 1253.7 | 1255.1 | -1.3 | 86.07 | 60.54 | 0.91 | 0.51 | 24.00 |
| ИТОГО: | 168.0 | 7206.6 | 7202.4 | +4.2 | 75.41 | 52.18 | 0.91 | 0.51 | 168.0 |
| 24/12/25 | 31.07 | 1300.9 | 1304.0 | -3.1 | 83.66 | 59.89 | 0.91 | 0.51 | 24.00 |
| 25/12/25 | 24.48 | 1325.8 | 1330.0 | -4.2 | 71.92 | 53.54 | 0.91 | 0.51 | 24.00 |
| 26/12/25 | 22.55 | 949.0 | 952.0 | -3.0 | 73.36 | 49.68 | 0.91 | 0.51 | 24.00 |
| 27/12/25 | 23.18 | 943.3 | 947.2 | -3.9 | 74.22 | 49.73 | 0.91 | 0.51 | 24.00 |
| 28/12/25 | 24.54 | 1011.7 | 1016.1 | -4.4 | 75.01 | 50.84 | 0.91 | 0.51 | 24.00 |
| 29/12/25 | 24.73 | 1041.4 | 1046.2 | -4.8 | 75.21 | 51.56 | 0.91 | 0.51 | 24.00 |
| 30/12/25 | 25.50 | 1158.8 | 1164.8 | -6.0 | 75.12 | 53.21 | 0.91 | 0.51 | 24.00 |
| ИТОГО: | 176.1 | 7730.8 | 7760.2 | -29.4 | 75.68 | 53.00 | 0.91 | 0.51 | 168.0 |
| 31/12/25 | 27.95 | 1236.0 | 1243.5 | -7.5 | 78.24 | 55.71 | 0.91 | 0.51 | 24.00 |
| 01/01/26 | 29.20 | 1255.7 | 1264.7 | -9.0 | 82.22 | 59.06 | 0.91 | 0.51 | 24.00 |
| 02/01/26 | 29.72 | 1263.9 | 1274.0 | -10.1 | 82.67 | 59.25 | 0.91 | 0.51 | 24.00 |
| 03/01/26 | 26.34 | 1300.8 | 1311.3 | -10.5 | 75.79 | 55.64 | 0.91 | 0.51 | 24.00 |
| 04/01/26 | 24.40 | 1186.1 | 1195.7 | -9.5 | 73.47 | 52.99 | 0.91 | 0.51 | 24.00 |
| 05/01/26 | 25.53 | 1171.3 | 1180.8 | -9.5 | 75.20 | 53.50 | 0.91 | 0.51 | 24.00 |
| 06/01/26 | 26.65 | 1170.0 | 1178.5 | -8.6 | 77.17 | 54.48 | 0.91 | 0.51 | 24.00 |
| ИТОГО: | 189.8 | 8583.7 | 8648.4 | -64.7 | 77.88 | 55.87 | 0.91 | 0.51 | 168.0 |
| 07/01/26 | 26.20 | 1328.5 | 1335.5 | -7.1 | 74.88 | 55.25 | 0.91 | 0.51 | 24.00 |
| 08/01/26 | 27.53 | 1345.1 | 1348.2 | -3.1 | 76.81 | 56.43 | 0.91 | 0.51 | 24.00 |
| 09/01/26 | 29.15 | 1301.9 | 1302.1 | -0.2 | 80.10 | 57.81 | 0.91 | 0.51 | 24.00 |
| 10/01/26 | 26.25 | 1191.3 | 1190.2 | +1.1 | 76.07 | 54.13 | 0.91 | 0.51 | 24.00 |
| 11/01/26 | 27.36 | 1308.5 | 1306.3 | +2.2 | 75.84 | 55.02 | 0.91 | 0.51 | 24.00 |
| 12/01/26 | 25.82 | 1324.7 | 1321.9 | +2.8 | 73.95 | 54.55 | 0.91 | 0.51 | 24.00 |
| 13/01/26 | 28.51 | 1048.3 | 1045.6 | +2.7 | 82.20 | 55.11 | 0.91 | 0.51 | 24.00 |
| ИТОГО: | 190.8 | 8848.5 | 8849.9 | -1.5 | 76.97 | 55.50 | 0.91 | 0.51 | 168.0 |
| 14/01/26 | 27.91 | 1204.1 | 1201.4 | +2.8 | 79.19 | 56.11 | 0.91 | 0.51 | 24.00 |
| 15/01/26 | 29.41 | 1127.1 | 1124.3 | +2.8 | 82.71 | 56.72 | 0.91 | 0.51 | 24.00 |
| 16/01/26 | 31.93 | 1122.4 | 1119.7 | +2.6 | 88.56 | 60.22 | 0.91 | 0.51 | 24.00 |
| ИТОГО: | 89.3 | 3453.6 | 3445.4 | +8.2 | 83.38 | 57.64 | 0.91 | 0.51 | 72.0 |
| ИТОГО: | 814.0 | 35823.2 | 35906.5 | +22.7 | 77.21 | 54.59 | 0.91 | 0.51 | 744.0 |
| | | -83.2 | -105.9 | 22.63 | | | | | |

Общее время работы системы, ч = Tнар. + Tmin + Tmax + Tdtmin + Tтн.
 744.00 744.00 0.00 0.00 0.00 0.00

Количество тепла, Гкал Q = Qт/с + Qmin + Qmax + Qосн. + Qт/в + Qсан.ут.
 = 814.0 + _____ + _____ + _____ + _____ + _____

| Показания интеграторов на | 16/12/25 24:00 | 16/01/26 24:00 | Разность | 19/01/26 09:09 |
|--|----------------|----------------|----------|----------------|
| Расход тепла Q, Гкал | 51387.82 | 52201.78 | 813.96 | 52277.63 |
| Расход теплоносителя M1, т | 2673028.8 | 2708852.0 | 35823.2 | 2711533.6 |
| Расход теплоносителя M2, т | 2700667.8 | 2736574.2 | 35906.5 | 2739249.2 |
| Время наработки Tнар, ч | 81141.86 | 81885.86 | 744.00 | 81943.03 |
| Время неработы Tнер = Tmax + Tmin + Tdt + Tтн, ч | | | 0.00 | |

v3A.10

Подпись потребителя _____

Подпись поставщика _____

МЕСЯЧНЫЙ ПРОТОКОЛ УЧЕТА ТЕПЛОВОЙ ЭНЕРГИИ И ТЕПЛОНОСИТЕЛЯ ЗА 12 мес 25 г.

Название потребителя _____ Абонент _____
 Адрес потребителя Маршала Жукова 23 Телефон _____
 Ответственное лицо _____

Вычислитель ТС-201-2-2-1-1 Сер.ном. 240750 Расход под 0.320.. 80.000 м3/ч Ду 100 мм
 Отчетное число месяца 11 Отчетное время 00:00 Расход обр 0.320.. 80.000 м3/ч Ду 100 мм
 Расход п ротор 10.00 л/имп Ду 25 мм

| Дата | Qтеп [Гкал] | tпод [оС] | tобр [оС] | Gпод [тонн] | Gобр [тонн] | Gп [тонн] | Gпод-Gобр [тонн] | рпод [ат] | робр [ат] | Tнар [час] |
|-------|----------------|--------------|--------------|----------------|----------------|--------------|---------------------|--------------|--------------|---------------|
| 11.12 | 22.51429 | 77.5 | 52.9 | 924.521 | 923.977 | 0.20 | 0.544 | 7.4 | 5.4 | 24.00 |
| 12.12 | 22.18255 | 77.9 | 53.0 | 909.256 | 908.755 | 0.19 | 0.501 | 7.5 | 5.4 | 24.00 |
| 13.12 | 28.94228 | 84.5 | 57.0 | 1049.592 | 1049.108 | 0.13 | 0.484 | 7.2 | 5.4 | 24.00 |
| 14.12 | 30.18913 | 85.3 | 58.1 | 1109.179 | 1108.628 | 0.29 | 0.551 | 7.2 | 5.4 | 24.00 |
| 15.12 | 30.46152 | 87.2 | 58.2 | 1057.749 | 1057.220 | 0.16 | 0.529 | 7.2 | 5.4 | 24.00 |
| 16.12 | 26.14111 | 82.8 | 53.8 | 901.731 | 901.228 | 0.27 | 0.503 | 7.5 | 5.4 | 24.00 |
| 17.12 | 23.07640 | 79.4 | 51.9 | 847.711 | 847.160 | 0.22 | 0.551 | 7.7 | 5.4 | 24.00 |
| 18.12 | 24.13629 | 78.0 | 53.5 | 984.432 | 983.819 | 0.20 | 0.613 | 7.4 | 5.4 | 24.00 |
| 19.12 | 24.07312 | 76.7 | 53.7 | 1057.395 | 1056.731 | 0.44 | 0.664 | 7.1 | 5.5 | 24.00 |
| 20.12 | 24.38954 | 76.2 | 53.4 | 1085.842 | 1085.067 | 0.13 | 0.775 | 6.9 | 5.4 | 24.00 |
| 21.12 | 24.27949 | 78.9 | 53.1 | 944.522 | 943.841 | 0.17 | 0.681 | 7.1 | 5.4 | 24.00 |
| 22.12 | 24.67348 | 79.2 | 53.9 | 994.527 | 993.805 | 0.13 | 0.722 | 7.2 | 5.4 | 24.00 |
| 23.12 | 32.98022 | 87.0 | 61.3 | 1277.463 | 1276.614 | 0.21 | 0.849 | 7.4 | 5.5 | 24.00 |
| 24.12 | 34.10135 | 90.2 | 61.8 | 1203.155 | 1202.381 | 0.15 | 0.774 | 7.5 | 5.5 | 24.00 |
| 25.12 | 28.42441 | 84.7 | 54.9 | 964.298 | 963.726 | 0.24 | 0.572 | 7.5 | 5.5 | 24.00 |
| 26.12 | 25.16953 | 79.2 | 53.3 | 980.648 | 980.052 | 0.19 | 0.596 | 7.6 | 5.4 | 24.00 |
| 27.12 | 25.78084 | 78.8 | 54.3 | 1050.141 | 1049.493 | 0.18 | 0.648 | 7.5 | 5.4 | 24.00 |
| 28.12 | 26.81281 | 82.1 | 54.8 | 984.172 | 983.607 | 0.15 | 0.565 | 7.5 | 5.4 | 24.00 |
| 29.12 | 27.40864 | 81.4 | 56.0 | 1082.131 | 1081.548 | 0.19 | 0.583 | 7.5 | 5.5 | 24.00 |
| 30.12 | 28.27514 | 82.0 | 57.0 | 1133.754 | 1133.105 | 0.17 | 0.649 | 7.5 | 5.4 | 24.00 |
| 31.12 | 30.33969 | 84.1 | 58.6 | 1191.093 | 1190.383 | 0.12 | 0.710 | 7.4 | 5.5 | 24.00 |
| 01.01 | 33.58140 | 92.6 | 61.8 | 1097.832 | 1097.260 | 0.15 | 0.572 | 7.6 | 5.5 | 24.00 |
| 02.01 | 34.37145 | 94.1 | 63.4 | 1121.321 | 1120.737 | 0.17 | 0.584 | 7.6 | 5.5 | 24.00 |
| 03.01 | 28.49255 | 85.8 | 57.1 | 993.035 | 992.479 | 0.22 | 0.556 | 7.6 | 5.5 | 24.00 |
| 04.01 | 26.60540 | 79.8 | 56.2 | 1123.610 | 1122.848 | 0.18 | 0.762 | 7.5 | 5.5 | 24.00 |
| 05.01 | 27.91594 | 80.7 | 57.6 | 1209.026 | 1208.116 | 0.15 | 0.910 | 7.5 | 5.5 | 24.00 |
| 06.01 | 29.82564 | 84.9 | 58.0 | 1108.307 | 1107.544 | 0.17 | 0.763 | 7.5 | 5.5 | 24.00 |
| 07.01 | 29.75158 | 83.4 | 58.0 | 1169.856 | 1168.920 | 0.20 | 0.936 | 7.5 | 5.5 | 24.00 |
| 08.01 | 30.71914 | 83.6 | 59.0 | 1244.761 | 1243.713 | 0.19 | 1.048 | 7.5 | 5.5 | 24.00 |
| 09.01 | 32.57575 | 88.6 | 60.3 | 1154.785 | 1153.876 | 0.41 | 0.909 | 7.6 | 5.5 | 24.00 |
| 10.01 | 28.94719 | 83.6 | 56.5 | 1070.702 | 1069.799 | 0.17 | 0.903 | 7.6 | 5.5 | 24.00 |
| 11.01 | 30.44001 | 83.5 | 58.6 | 1225.146 | 1224.057 | 0.18 | 1.089 | 7.5 | 5.5 | 24.00 |
| 12.01 | 29.18623 | 82.6 | 56.8 | 1131.693 | 1130.724 | 0.17 | 0.969 | 7.6 | 5.5 | 24.00 |
| 13.01 | 32.12690 | 88.3 | 58.7 | 1100.293 | 1099.324 | 0.09 | 0.969 | 7.6 | 5.5 | 24.00 |
| 14.01 | 31.56448 | 87.4 | 58.5 | 1093.754 | 1092.718 | 0.20 | 1.036 | 7.6 | 5.5 | 24.00 |
| 15.01 | 31.75654 | 84.4 | 59.1 | 1267.363 | 1266.046 | 0.19 | 1.317 | 7.5 | 5.5 | 24.00 |
| 16.01 | 34.52121 | 89.4 | 60.7 | 1227.248 | 1226.205 | 0.21 | 1.043 | 7.6 | 5.5 | 24.00 |
| Итого | 1056.73324 | 83.4 | 56.9 | 40072.044 | 40044.614 | 7.18 | 27.430 | 7.5 | 5.5 | 888.00 |

Тотч.пер. = Tнар + Tмакс + Tdelta_t<мин + Tэл.пит + Tпроч.ав. Tмин = 0.43ч
 888.00ч = 888.00ч + 0.00ч + 0.00ч + 0.00ч + 0.00ч

| Т/С ТЕПЛОСЕТЬ нарастающим итогом | Qтеп [Гкал] | Gпод [тонн] | Gобр [тонн] | Gп [тонн] | Tнар [час] |
|-------------------------------------|----------------|----------------|----------------|--------------|---------------|
| 17-01-26 00:00 | 6167.49776 | 372999.356 | 372423.030 | 104.18 | 10623.73 |
| 11-12-25 00:00 | 5110.76452 | 332927.312 | 332378.416 | 97.00 | 9735.73 |

Расшифровка ошибок:
 (<) параметр < min
 (>) параметр > max
 (X) обрыв датчика
 (T) delta_t < min
 (R) перезапуск

| | | | | | | |
|-------|------------|-----------|-----------|------|--------|--|
| Итого | 1056.73324 | 40072.044 | 40044.614 | 7.18 | 888.00 | (С) коррекц. часов (#) электропитание |
|-------|------------|-----------|-----------|------|--------|--|

Тобщ = 888.00ч

ВИС.Т.НС-М-2.60 / НС-А-2.57 CRC 27672 HcSet 2.60 08-07-24 12ч

Q=G1 (H1-H2)

19.01.26 Подпись _____

МЕСЯЧНЫЙ ПРОТОКОЛ УЧЕТА ТЕПЛОВОЙ ЭНЕРГИИ И ТЕПЛОНОСИТЕЛЯ ЗА 12 мес 25 г.

Название потребителя _____ Абонент _____
 Адрес потребителя Огарево 6 Телефон _____
 Ответственное лицо _____
 Вычислитель ТС-401-5-5-3-Е2Т Сер.ном. 130144 Расход под 0.000.. 40.000 м3/ч Ду 50 мм
 Отчетное число месяца 11 Отчетное время 00:00 Расход обр 0.000.. 40.000 м3/ч Ду 50 мм

| Дата | Qтеп [Гкал] | tпод [оС] | tобр [оС] | Gпод [тонн] | Gобр [тонн] | Gпод-Gобр [тонн] | рпод [ат] | робр [ат] | Tнар [час] |
|-------|----------------|--------------|--------------|----------------|----------------|---------------------|--------------|--------------|---------------|
| 11.12 | | | | | | | | | |
| 12.12 | | | | | | | | | |
| 13.12 | | | | | | | | | |
| 14.12 | 0.90779 | 73.8 | 61.8 | 75.773 | 77.878 | -2.105 | 3.3 | 3.1 | 7.00 |
| 15.12 | 3.12473 | 73.7 | 61.6 | 258.200 | 265.459 | -7.259 | 3.1 | 2.9 | 24.00 |
| 16.12 | 2.93226 | 71.3 | 60.0 | 259.064 | 266.327 | -7.263 | 3.0 | 2.8 | 24.00 |
| 17.12 | 2.90773 | 71.8 | 60.5 | 257.992 | 265.268 | -7.276 | 3.0 | 2.8 | 24.00 |
| 18.12 | 2.85310 | 71.1 | 60.1 | 257.734 | 264.994 | -7.260 | 3.0 | 2.8 | 24.00 |
| 19.12 | 2.77968 | 70.0 | 59.5 | 263.335 | 270.787 | -7.452 | 3.2 | 3.0 | 24.00 |
| 20.12 | 2.83332 | 70.2 | 59.7 | 268.640 | 276.161 | -7.521 | 3.3 | 3.1 | 24.00 |
| 21.12 | 2.79612 | 70.1 | 59.7 | 268.527 | 276.102 | -7.575 | 3.4 | 3.1 | 24.00 |
| 22.12 | 2.81129 | 70.5 | 59.9 | 265.662 | 273.171 | -7.509 | 3.3 | 3.1 | 24.00 |
| 23.12 | 3.28777 | 75.7 | 62.9 | 257.389 | 264.435 | -7.046 | 3.2 | 3.0 | 24.00 |
| 24.12 | 3.41635 | 76.3 | 62.8 | 254.028 | 260.900 | -6.872 | 3.2 | 3.0 | 24.00 |
| 25.12 | 3.14866 | 73.8 | 61.8 | 261.963 | 268.863 | -6.900 | 3.3 | 3.0 | 24.00 |
| 26.12 | 2.86560 | 70.3 | 59.5 | 264.627 | 271.568 | -6.941 | 3.3 | 3.0 | 24.00 |
| 27.12 | 2.89330 | 71.3 | 60.4 | 264.382 | 271.330 | -6.948 | 3.3 | 3.0 | 24.00 |
| 28.12 | 2.85406 | 71.0 | 60.2 | 264.545 | 271.407 | -6.862 | 3.3 | 3.1 | 24.00 |
| 29.12 | 2.86658 | 71.3 | 60.5 | 264.941 | 271.563 | -6.622 | 3.3 | 3.0 | 24.00 |
| 30.12 | 2.90045 | 72.0 | 61.0 | 264.744 | 271.394 | -6.650 | 3.2 | 3.0 | 24.00 |
| 31.12 | 2.99892 | 73.3 | 62.0 | 263.972 | 270.986 | -7.014 | 3.2 | 2.9 | 24.00 |
| 01.01 | 3.37472 | 77.6 | 64.6 | 258.574 | 265.504 | -6.930 | 3.1 | 2.9 | 24.00 |
| 02.01 | 3.38065 | 77.5 | 64.2 | 255.033 | 261.693 | -6.660 | 3.1 | 2.9 | 23.90 |
| 03.01 | 3.15828 | 74.7 | 62.6 | 262.242 | 269.242 | -7.000 | 3.3 | 3.0 | 24.00 |
| 04.01 | 3.00511 | 73.0 | 61.5 | 262.820 | 269.848 | -7.028 | 3.4 | 3.1 | 24.00 |
| 05.01 | 3.02895 | 73.2 | 61.7 | 264.278 | 271.298 | -7.020 | 3.4 | 3.2 | 24.00 |
| 06.01 | 3.11795 | 74.4 | 62.6 | 263.781 | 270.730 | -6.949 | 3.4 | 3.1 | 24.00 |
| 07.01 | 3.04192 | 73.4 | 61.9 | 263.848 | 270.805 | -6.957 | 3.4 | 3.1 | 24.00 |
| 08.01 | 3.06455 | 73.6 | 61.8 | 258.885 | 265.757 | -6.872 | 3.4 | 3.2 | 24.00 |
| 09.01 | 3.22965 | 75.9 | 63.1 | 252.365 | 258.926 | -6.561 | 3.3 | 3.2 | 24.00 |
| 10.01 | 3.13226 | 75.4 | 62.8 | 248.840 | 255.394 | -6.554 | 3.3 | 3.1 | 23.86 |
| 11.01 | 3.12571 | 75.4 | 63.0 | 251.160 | 257.752 | -6.592 | 3.3 | 3.1 | 24.00 |
| 12.01 | 2.93684 | 72.1 | 60.6 | 255.006 | 261.717 | -6.711 | 3.4 | 3.2 | 24.00 |
| 13.01 | 3.13725 | 74.9 | 62.7 | 258.098 | 265.016 | -6.918 | 3.4 | 3.2 | 24.00 |
| 14.01 | 3.13431 | 74.2 | 62.2 | 260.573 | 267.488 | -6.915 | 3.4 | 3.2 | 23.93 |
| 15.01 | 3.14123 | 74.0 | 61.8 | 257.782 | 264.555 | -6.773 | 3.4 | 3.2 | 24.00 |
| 16.01 | 3.40459 | 77.1 | 63.7 | 254.899 | 261.557 | -6.658 | 3.5 | 3.3 | 24.00 |
| Итого | 101.59168 | 73.3' | 61.6' | 8663.702 | 8895.875 | -232.173 | 3.3 | 3.0 | 798.69 |

Тотч.пер. = Tнар + Tмакс + Tdelta_t<мин + Tэл.пит + Tпроч.ав.
 888.00ч = 798.69ч + 0.00ч + 0.31ч + 0.00ч + 89.00ч

| Т/С Отопление нарастающим итогом | Qтеп [Гкал] | Gпод [тонн] | Gобр [тонн] | Tнар [час] |
|-------------------------------------|----------------|----------------|----------------|---------------|
| 17-01-26 00:00 | 7186.63129 | 623104.446 | 629520.157 | 65952.24 |
| 14-12-25 18:00 | 7085.16741 | 614451.588 | 620635.423 | 65154.55 |

Расшифровка ошибок:
 (<) параметр < min
 (>) параметр > max
 (X) обрыв датчика
 (T) delta_t < min
 (R) перезапуск

| | | | | |
|-------|-----------|----------|----------|--------|
| Итого | 101.59168 | 8663.702 | 8895.875 | 798.69 |
|-------|-----------|----------|----------|--------|

(С) коррекц. часов
(#) электропитание

Тобщ = 888.00ч

Обновление 2.55 13-06-19 17ч НС-М-2.54 / НС-А-2.52 Q=G1 (Н1-Н2)

19.01.26 Подпись _____

МЕСЯЧНЫЙ ПРОТОКОЛ УЧЕТА ТЕПЛОВОЙ ЭНЕРГИИ И ТЕПЛОНОСИТЕЛЯ ЗА 12 мес 25 г.

Название потребителя _____ Абонент _____
 Адрес потребителя Садовая 22А Телефон _____
 Ответственное лицо _____

Вычислитель ТС-203-2-2-3 Сер.ном. 00258 Расход под 0.240.. 60.000 м3/ч Ду 80 мм
 Отчетное число месяца 11 Отчетное время 00:00 Расход обр 0.240.. 60.000 м3/ч Ду 80 мм
 Расход п ротор 10.00 л/имп Ду 25 мм

| Дата | Qтеп [Гкал] | tпод [оС] | tобр [оС] | Gпод [тонн] | Gобр [тонн] | Gп [тонн] | Gпод-Gобр [тонн] | рпод [ат] | робр [ат] | Tнар [час] |
|-------|----------------|--------------|--------------|----------------|----------------|--------------|---------------------|--------------|--------------|---------------|
| 11.12 | 15.34526 | 75.8 | 62.1 | 1119.604 | 1093.418 | 0.00 | 26.186 | < | 1.4 | 24.00 |
| 12.12 | 14.15870 | 75.8 | 62.2 | 1041.943 | 1018.001 | 0.00 | 23.942 | < | 1.5 | 24.00 |
| 13.12 | 16.43880 | 78.4 | 62.6 | 1038.280 | 1015.492 | 0.00 | 22.788 | < | 1.6 | 24.00 |
| 14.12 | 16.78985 | 78.9 | 62.5 | 1024.431 | 1002.152 | 0.00 | 22.279 | < | 1.6 | 24.00 |
| 15.12 | 16.72481 | 78.8 | 62.2 | 1007.989 | 985.944 | 0.00 | 22.045 | < | 1.6 | 24.00 |
| 16.12 | 15.69602 | 78.7 | 62.0 | 944.834 | 925.653 | 0.00 | 19.181 | < | 1.5 | 24.00 |
| 17.12 | 16.07909 | 76.9 | 61.6 | 1054.315 | 1031.291 | 0.00 | 23.024 | < | 1.5 | 24.00 |
| 18.12 | 16.04507 | 76.9 | 61.8 | 1066.158 | 1043.174 | 0.00 | 22.984 | < | 1.6 | 24.00 |
| 19.12 | 16.00954 | 76.8 | 62.0 | 1078.141 | 1055.754 | 0.00 | 22.387 | < | 1.6 | 24.00 |
| 20.12 | 16.16390 | 76.9 | 62.0 | 1088.601 | 1066.450 | 0.00 | 22.151 | < | 1.6 | 24.00 |
| 21.12 | 16.33535 | 76.9 | 61.9 | 1092.953 | 1071.278 | 0.00 | 21.675 | < | 1.6 | 24.00 |
| 22.12 | 15.88426 | 76.8 | 62.4 | 1102.338 | 1080.697 | 0.00 | 21.641 | < | 1.5 | 24.00 |
| 23.12 | 19.12969 | 86.7 | 67.6 | 1002.171 | 989.072 | 0.00 | 13.099 | < | 1.4 | 24.00 |
| 24.12 | 20.72297 | 91.4 | 70.0 | 969.012 | 959.854 | 0.00 | 9.158 | < | 1.4 | 24.00 |
| 25.12 | 15.70691 | 75.7 | 60.4 | 1027.740 | 1009.344 | 0.00 | 18.396 | < | 1.7 | 24.00 |
| 26.12 | 16.29400 | 77.6 | 62.1 | 1054.323 | 1036.394 | 0.00 | 17.929 | < | 1.6 | 24.00 |
| 27.12 | 16.38630 | 77.7 | 62.5 | 1075.451 | 1057.413 | 0.00 | 18.038 | < | < 1.5 | 24.00 |
| 28.12 | 16.71534 | 78.7 | 62.7 | 1041.736 | 1026.384 | 0.00 | 15.352 | < | 1.5 | 24.00 |
| 29.12 | 16.83210 | 79.0 | 63.0 | 1053.062 | 1038.601 | 0.00 | 14.461 | < | 1.4 | 24.00 |
| 30.12 | 16.59340 | 79.0 | 62.8 | 1028.050 | 1014.808 | 0.00 | 13.242 | < | 1.4 | 24.00 |
| 31.12 | 17.84335 | 80.9 | 63.2 | 1008.514 | 998.008 | 0.00 | 10.506 | < | 1.4 | 24.00 |
| 01.01 | 18.31332 | 85.4 | 66.6 | 970.923 | 964.800 | 0.00 | 6.123 | < | 1.3 | 24.00 |
| 02.01 | 18.82045 | 87.4 | 67.5 | 942.991 | 939.358 | 0.00 | 3.633 | < | 1.3 | 24.00 |
| 03.01 | 17.00038 | 81.0 | 63.7 | 985.467 | 978.770 | 0.00 | 6.697 | < | 1.4 | 24.00 |
| 04.01 | 15.84979 | 76.9 | 61.4 | 1019.560 | 1010.139 | 0.00 | 9.421 | < | 1.3 | 24.00 |
| 05.01 | 16.55152 | 78.6 | 62.4 | 1017.228 | 1009.387 | 0.00 | 7.841 | < | 1.3 | 24.00 |
| 06.01 | 17.18207 | 80.4 | 63.5 | 1013.035 | 1005.211 | 0.00 | 7.824 | < | 1.3 | 24.00 |
| 07.01 | 16.80418 | 79.5 | 63.1 | 1022.812 | 1010.862 | 0.00 | 11.950 | < | 1.3 | 24.00 |
| 08.01 | 16.84934 | 79.4 | 63.0 | 1025.739 | 1011.602 | 0.00 | 14.137 | < | 1.4 | 24.00 |
| 09.01 | 18.56814 | 84.1 | 65.1 | 976.109 | 966.211 | 0.00 | 9.898 | < | 1.3 | 24.00 |
| 10.01 | 17.28798 | 79.9 | 62.7 | 1001.233 | 987.825 | 0.00 | 13.408 | < | 1.4 | 24.00 |
| 11.01 | 17.80615 | 81.1 | 63.1 | 988.746 | 974.751 | 0.00 | 13.995 | < | 1.5 | 24.00 |
| 12.01 | 16.38441 | 77.0 | 60.9 | 1019.344 | 998.971 | 0.00 | 20.373 | < | 1.6 | 24.00 |
| 13.01 | 18.41892 | 84.2 | 65.6 | 993.816 | 976.816 | 0.00 | 17.000 | < | 1.3 | 24.00 |
| 14.01 | 18.81362 | 84.9 | 65.9 | 989.281 | 972.593 | 0.00 | 16.688 | < | 1.3 | 24.00 |
| 15.01 | 18.69208 | 84.9 | 65.8 | < 982.368 | < 964.630 | 0.00 | 17.738 | < | 1.3 | # 24.00 |
| 16.01 | 21.02413 | 92.5 | 70.8 | 966.193 | 953.575 | 0.00 | 12.618 | < | 1.1 | 24.00 |
| Итого | 632.26119 | 80.2' | 63.5' | 37834.491 | 37244.683 | 0.00 | 589.808 | | 1.4 | 888.00 |

Тотч.пер. = Tнар + Tмин + Tмакс + Tdelta_t<мин + Tэл.пит + Tпроч.ав.
 888.00ч = 888.00ч + 0.00ч + 0.00ч + 0.00ч + 0.00ч + 0.00ч

| Т/С Ввод т/сети нарастающим итогом | Qтеп [Гкал] | Gпод [тонн] | Gобр [тонн] | Gп [тонн] | Tнар [час] |
|---------------------------------------|----------------|----------------|----------------|--------------|---------------|
| 17-01-26 00:00 | 19624.27712 | 1384856.774 | 1382427.880 | 55.62 | 43926.77 |
| 11-12-25 00:00 | 18992.01593 | 1347022.283 | 1345183.197 | 55.62 | 43038.77 |

Расшифровка ошибок:
 (<) параметр < min
 (>) параметр > max
 (X) обрыв датчика
 (T) delta_t < min
 (R) перезапуск

| | | | | | | |
|-------|-----------|-----------|-----------|------|--------|--|
| Итого | 632.26119 | 37834.491 | 37244.683 | 0.00 | 888.00 | (С) коррекц. часов (#) электропитание |
|-------|-----------|-----------|-----------|------|--------|--|

Тобщ = 888.00ч

Обновление 2.39 30-07-20 11ч НС-А-2.37 / НС-А-2.36 Q=G1 (Н1-Н2)

19.01.26 Подпись _____

МЕСЯЧНЫЙ ПРОТОКОЛ УЧЕТА ТЕПЛОВОЙ ЭНЕРГИИ И ТЕПЛОНОСИТЕЛЯ ЗА 12 мес 25 г.

Название потребителя _____ Абонент _____
 Адрес потребителя Северная 36 Телефон _____
 Ответственное лицо _____

Вычислитель ТС-201-0-2-1-1 Сер.ном. 122600 Расход под 0.80.. 200.00 м3/ч Ду 150 мм
 Отчетное число месяца 11 Отчетное время 00:00 Расход обр 0.80.. 200.00 м3/ч Ду 150 мм
 Расход п ротор 10.00 л/имп Ду 40 мм

| Дата | Qтеп [Гкал] | tпод [оС] | tобр [оС] | Gпод [тонн] | Gобр [тонн] | Gп [тонн] | Gпод-Gобр [тонн] | Tнар [час] |
|--------------|------------------|--------------|--------------|-----------------|-----------------|--------------|---------------------|---------------|
| 11.12 | 23.9955 | 76.2 | 48.2 | 857.83 | 856.51 | 0.14 | 1.32 | 24.00 |
| 12.12 | 23.2581 | 76.7 | 48.6 | 828.46 | 826.88 | 0.27 | 1.58 | 24.00 |
| 13.12 | 33.1859 | 79.1 | 55.0 | 1376.71 | 1373.89 | 0.15 | 2.82 | 24.00 |
| 14.12 | 35.1155 | 79.3 | 56.5 | 1544.55 | 1541.57 | 0.12 | 2.98 | 24.00 |
| 15.12 | 34.4747 | 79.3 | 57.4 | 1580.77 | 1577.88 | 0.25 | 2.89 | 24.00 |
| 16.12 | 30.7373 | 78.7 | 54.9 | 1292.93 | 1290.62 | 0.26 | 2.31 | 24.00 |
| 17.12 | 27.3635 | 77.2 | 52.9 | 1125.87 | 1123.76 | 0.22 | 2.11 | 24.00 |
| 18.12 | 27.6902 | 77.2 | 51.7 | 1083.53 | 1081.39 | 0.25 | 2.14 | 24.00 |
| 19.12 | 26.1343 | 77.2 | 50.4 | 974.16 | 972.42 | 0.24 | 1.74 | 24.00 |
| 20.12 | 26.9731 | 77.2 | 49.9 | 988.04 | 986.46 | 0.13 | 1.58 | 24.00 |
| 21.12 | 25.9667 | 77.2 | 48.7 | 910.96 | 909.55 | 0.23 | 1.41 | 24.00 |
| 22.12 | 26.4466 | 77.8 | 49.8 | 943.55 | 941.97 | 0.17 | 1.58 | 24.00 |
| 23.12 | 41.8986 | 91.0 | 62.5 | 1469.91 | 1467.48 | 0.15 | 2.43 | 24.00 |
| 24.12 | 43.5204 | 87.5 | 64.9 | 1930.91 | 1927.58 | 0.25 | 3.33 | 24.00 |
| 25.12 | 32.0915 | 75.8 | 55.2 | 1561.50 | 1558.32 | 0.28 | 3.18 | 24.00 |
| 26.12 | 27.7611 | 77.5 | 50.0 | 1008.10 | 1006.11 | 0.43 | 1.99 | 24.00 |
| 27.12 | 28.3600 | 78.4 | 50.4 | 1010.81 | 1008.94 | 0.35 | 1.87 | 24.00 |
| 28.12 | 30.0579 | 79.2 | 51.3 | 1075.47 | 1073.21 | 0.33 | 2.26 | 24.00 |
| 29.12 | 30.2211 | 79.4 | 52.0 | 1103.67 | 1101.49 | 0.25 | 2.18 | 24.00 |
| 30.12 | 31.3537 | 79.3 | 53.2 | 1201.30 | 1199.05 | 0.41 | 2.25 | 24.00 |
| 31.12 | 35.5484 | 82.5 | 56.3 | 1354.22 | 1351.62 | 0.24 | 2.60 | 24.00 |
| 01.01 | 39.0020 | 86.7 | 61.6 | 1552.82 | 1549.84 | 0.36 | 2.98 | 24.00 |
| 02.01 | 40.5269 | 87.2 | 63.5 | 1710.11 | 1706.83 | 0.50 | 3.28 | 24.00 |
| 03.01 | 32.6231 | 80.0 | 56.2 | 1367.81 | 1365.02 | 0.50 | 2.79 | 24.00 |
| 04.01 | 29.6741 | 77.5 | 53.1 | 1216.33 | 1213.89 | 0.38 | 2.44 | 24.00 |
| 05.01 | 32.0583 | 79.4 | 53.8 | 1250.79 | 1248.03 | 0.75 | 2.76 | 24.00 |
| 06.01 | 33.8323 | 81.4 | 55.0 | 1282.12 | 1279.43 | 0.59 | 2.69 | 24.00 |
| 07.01 | 33.0138 | 79.0 | 55.2 | 1386.95 | 1383.95 | 0.49 | 3.00 | 24.00 |
| 08.01 | 35.5257 | 81.1 | 57.2 | 1488.83 | 1485.72 | 0.49 | 3.11 | 24.00 |
| 09.01 | 38.2817 | 84.4 | 59.4 | 1526.47 | 1523.24 | 0.46 | 3.23 | 24.00 |
| 10.01 | 32.5971 | 80.3 | 54.2 | 1250.55 | 1247.88 | 0.82 | 2.67 | 24.00 |
| 11.01 | 34.8653 | 80.0 | 55.8 | 1443.14 | 1440.22 | 0.54 | 2.92 | 24.00 |
| 12.01 | 32.7441 | 78.1 | 55.3 | 1441.28 | 1438.50 | 0.53 | 2.78 | 24.00 |
| 13.01 | 35.3475 | 86.9 | 57.2 | 1189.88 | 1187.66 | 0.49 | 2.22 | 24.00 |
| 14.01 | 35.1387 | 83.6 | 56.7 | 1306.98 | 1304.55 | 1.00 | 2.43 | 24.00 |
| 15.01 | 38.0108 | 87.4 | 58.5 | 1314.80 | 1312.20 | 0.87 | 2.60 | 24.00 |
| 16.01 | 42.1025 | 93.4 | 62.9 | 1379.25 | 1376.93 | 0.87 | 2.32 | 24.00 |
| Итого | 1207.4980 | 81.3' | 55.8' | 47331.36 | 47240.59 | 14.76 | 90.77 | 888.00 |

Тотч.пер. = Tнар + Tмин + Tмакс + Tdelta_t<мин + Tэл.пит + Tпроч.ав.
 888.00ч = 888.00ч + 0.00ч + 0.00ч + 0.00ч + 0.00ч + 0.00ч

| Т/С Ввод т/сети нарастающим итогом | Qтеп [Гкал] | Gпод [тонн] | Gобр [тонн] | Gп [тонн] | Tнар [час] |
|---------------------------------------|----------------|----------------|----------------|--------------|---------------|
| 17-01-26 00:00 | 73367.1397 | 3131684.80 | 3127835.50 | 1596.61 | 98325.05 |
| 11-12-25 00:00 | 72159.6417 | 3084353.44 | 3080594.91 | 1581.85 | 97437.05 |

Расшифровка ошибок:
 (<) параметр < min
 (>) параметр > max
 (X) обрыв датчика
 (T) delta_t < min
 (R) перезапуск

| | | | | | | |
|-------|-----------|----------|----------|-------|--------|--|
| Итого | 1207.4980 | 47331.36 | 47240.59 | 14.76 | 888.00 | (С) коррекц. часов (#) электропитание |
|-------|-----------|----------|----------|-------|--------|--|

Тобщ = 888.00ч

Обновление 2.49 19-04-17 16ч НС-М-2.49 / НС-А-2.36 Q=G1 (Н1-Н2)

19.01.26 Подпись _____

МЕСЯЧНЫЙ ПРОТОКОЛ УЧЕТА ТЕПЛОВОЙ ЭНЕРГИИ И ТЕПЛОНОСИТЕЛЯ ЗА 12 мес 25 г.

Название потребителя _____ Абонент _____
 Адрес потребителя Союзная 4 Телефон _____
 Ответственное лицо _____
 Вычислитель ТС-400-3-4-2-1 Сер.ном. 44905 Расход под 0.64.. 160.00 м3/ч Ду 100 мм
 Отчетное число месяца 11 Отчетное время 00:00 Расход обр 0.64.. 160.00 м3/ч Ду 100 мм

| Дата | Qтеп [Гкал] | tпод [оС] | tобр [оС] | Gпод [тонн] | Gобр [тонн] | Gпод-Gобр [тонн] | рпод [ат] | робр [ат] | Tнар [час] |
|-------|----------------|--------------|--------------|----------------|----------------|---------------------|--------------|--------------|---------------|
| 11.12 | 11.6228 | 54.8 | 47.9 | 1688.10 | 1686.92 | 1.18 | 6.5 | < | 24.00 |
| 12.12 | 11.5655 | 55.2 | 48.4 | 1686.59 | 1685.42 | 1.17 | 6.6 | < | 24.00 |
| 13.12 | 12.9371 | 57.5 | 49.9 | 1687.63 | 1686.45 | 1.18 | 6.6 | < | 24.00 |
| 14.12 | 14.3197 | 60.1 | 51.7 | 1688.34 | 1687.19 | 1.15 | 6.6 | < | 24.00 |
| 15.12 | 15.5100 | 62.8 | 53.6 | 1688.62 | 1687.46 | 1.16 | 6.6 | < | 24.00 |
| 16.12 | 13.6820 | 58.9 | 50.8 | 1687.69 | 1686.53 | 1.16 | 6.5 | < | 24.00 |
| 17.12 | 12.0511 | 55.3 | 48.2 | 1686.75 | 1685.58 | 1.17 | 6.4 | < | 24.00 |
| 18.12 | 11.9395 | 55.2 | 48.1 | 1687.80 | 1686.62 | 1.18 | 6.5 | < | 24.00 |
| 19.12 | 11.9321 | 55.1 | 48.0 | 1687.72 | 1686.50 | 1.22 | 6.5 | < | 24.00 |
| 20.12 | 11.9330 | 54.8 | 47.8 | 1688.34 | 1687.12 | 1.22 | 6.5 | < | 24.00 |
| 21.12 | 11.9157 | 55.0 | 47.9 | 1688.22 | 1686.99 | 1.23 | 6.4 | < | 24.00 |
| 22.12 | 12.0840 | 55.6 | 48.5 | 1687.36 | 1686.16 | 1.20 | 6.4 | < | 24.00 |
| 23.12 | 13.6097 | 58.0 | 50.0 | 1688.07 | 1686.86 | 1.21 | 6.5 | < | 24.00 |
| 24.12 | 16.1365 | 62.3 | 52.7 | 1688.53 | 1687.31 | 1.22 | 6.7 | < | 24.00 |
| 25.12 | 13.3900 | 56.3 | 48.4 | 1688.41 | 1687.19 | 1.22 | 6.8 | < | 24.00 |
| 26.12 | 13.3187 | 57.0 | 49.1 | 1688.49 | 1687.27 | 1.22 | 6.7 | < | 24.00 |
| 27.12 | 13.3034 | 57.7 | 49.8 | 1688.70 | 1687.49 | 1.21 | 6.6 | < | 24.00 |
| 28.12 | 12.9506 | 57.1 | 49.5 | 1689.13 | 1687.94 | 1.19 | 6.6 | < | 24.00 |
| 29.12 | 13.0718 | 57.5 | 49.8 | 1686.80 | 1685.59 | 1.21 | 6.5 | < | 23.96 |
| 30.12 | 12.8223 | 56.7 | 49.1 | 1689.68 | 1688.48 | 1.20 | 6.5 | < | 24.00 |
| 31.12 | 12.9152 | 56.8 | 49.2 | 1690.50 | 1689.30 | 1.20 | 6.4 | < | 24.00 |
| 01.01 | 14.0594 | 58.7 | 50.4 | 1691.01 | 1689.82 | 1.19 | 6.5 | < | 24.00 |
| 02.01 | 14.9256 | 59.8 | 51.0 | 1691.38 | 1690.19 | 1.19 | 6.4 | < | 24.00 |
| 03.01 | 14.2529 | 58.5 | 50.0 | 1690.04 | 1688.85 | 1.19 | 6.3 | < | 24.00 |
| 04.01 | 13.5608 | 57.6 | 49.6 | 1689.94 | 1688.75 | 1.19 | 6.4 | < | 24.00 |
| 05.01 | 13.1565 | 57.1 | 49.1 | 1642.61 | 1641.44 | 1.17 | 6.3 | < | # 24.00 |
| 06.01 | 13.4338 | 57.1 | 49.1 | 1690.31 | 1689.12 | 1.19 | 6.4 | < | 24.00 |
| 07.01 | 13.4205 | 56.9 | 48.9 | 1666.35 | 1665.17 | 1.18 | 6.3 | < | # 24.00 |
| 08.01 | 13.5995 | 57.4 | 49.4 | 1690.33 | 1689.14 | 1.19 | 6.3 | < | 24.00 |
| 09.01 | 14.4098 | 59.1 | 50.6 | 1689.85 | 1688.68 | 1.17 | 6.4 | < | 24.00 |
| 10.01 | 13.4268 | 57.1 | 49.1 | 1689.07 | 1687.89 | 1.18 | 6.3 | < | 24.00 |
| 11.01 | 13.4232 | 56.9 | 49.0 | 1689.51 | 1688.34 | 1.17 | 6.3 | < | 24.00 |
| 12.01 | 13.5372 | 57.5 | 49.5 | 1688.88 | 1687.72 | 1.16 | 6.3 | < | 24.00 |
| 13.01 | 13.3428 | 56.9 | 49.0 | 1689.39 | 1688.22 | 1.17 | 6.3 | < | 24.00 |
| 14.01 | 13.9390 | 57.9 | 49.7 | 1689.46 | 1688.29 | 1.17 | 6.3 | < | 24.00 |
| 15.01 | 13.8108 | 57.6 | 49.4 | 1689.22 | 1688.05 | 1.17 | 6.3 | < | 24.00 |
| 16.01 | 14.4964 | 58.6 | 50.0 | 1690.21 | 1689.04 | 1.17 | 6.4 | < | 24.00 |
| Итого | 493.8057 | 57.4' | 49.5' | 62419.03 | 62375.08 | 43.95 | 6.5 | | 887.96 |

Тотч.пер. = Tнар + Tмин + Tмакс + Tdelta_t<мин + Tэл.пит + Tпроч.ав.
 888.00ч = 887.96ч + 0.00ч + 0.00ч + 0.04ч + 0.00ч + 0.00ч

| Т/С Отопление нарастающим итогом | Qтеп [Гкал] | Gпод [тонн] | Gобр [тонн] | Tнар [час] |
|-------------------------------------|----------------|----------------|----------------|---------------|
| 17-01-26 00:00 | 39611.5371 | 5572031.31 | 5569511.99 | 86107.91 |
| 11-12-25 00:00 | 39117.7314 | 5509612.28 | 5507136.91 | 85219.95 |

Расшифровка ошибок:
 (<) параметр < min
 (>) параметр > max
 (X) обрыв датчика
 (T) delta_t < min
 (R) перезапуск

| | | | | |
|-------|----------|----------|----------|--------|
| Итого | 493.8057 | 62419.03 | 62375.08 | 887.96 |
|-------|----------|----------|----------|--------|

(С) коррекц. часов
(#) электропитание

Тобщ = 888.00ч

Обновление 2.39 15-03-19 13ч НС-А-2.37 / НС-А-2.36 Q=G1 (Н1-Н2)

19.01.26 Подпись _____

МЕСЯЧНЫЙ ПРОТОКОЛ УЧЕТА ТЕПЛОВОЙ ЭНЕРГИИ И ТЕПЛОНОСИТЕЛЯ ЗА 12 мес 25 г.

Название потребителя _____ Абонент _____
 Адрес потребителя Усово-Тупик 9 Телефон _____
 Ответственное лицо _____

Вычислитель ТС-0200-0-2-1-1-0 Сер.ном. 180098 Расход под 0.080.. 40.000 м3/ч Ду 50 мм
 Отчетное число месяца 11 Отчетное время 00:00 Расход обр 0.080.. 40.000 м3/ч Ду 50 мм

| Дата | Qтеп [Гкал] | tпод [оС] | tобр [оС] | Gпод [тонн] | Gобр [тонн] | Gпод-Gобр [тонн] | Tнар [час] |
|--------------|------------------|--------------|--------------|------------------|------------------|---------------------|---------------|
| 11.12 | 4.70934 | 68.2 | 45.9 | 211.387 | 211.242 | 0.145 | 24.00 |
| 12.12 | 4.52964 | 68.1 | 45.8 | 204.727 | 204.585 | 0.142 | 24.00 |
| 13.12 | 6.20281 | 69.8 | 49.6 | 307.227 | 307.028 | 0.199 | 24.00 |
| 14.12 | 6.77652 | 71.7 | 50.0 | 311.579 | 311.376 | 0.203 | 24.00 |
| 15.12 | 6.56946 | 71.2 | 50.9 | 325.138 | 324.930 | 0.208 | 24.00 |
| 16.12 | 5.56935 | 68.5 | 48.2 | 276.940 | 276.760 | 0.180 | 24.00 |
| 17.12 | 4.94414 | 68.4 | 46.0 | 220.417 | 220.267 | 0.150 | 24.00 |
| 18.12 | 5.16039 | 68.5 | 46.8 | 237.905 | 237.747 | 0.158 | 24.00 |
| 19.12 | 5.25571 | 68.6 | 46.8 | 241.601 | 241.442 | 0.159 | 24.00 |
| 20.12 | 5.40547 | 68.6 | 47.4 | 255.025 | 254.860 | 0.165 | 24.00 |
| 21.12 | 5.25118 | 68.6 | 46.6 | 238.516 | 238.361 | 0.155 | 24.00 |
| 22.12 | 5.18423 | 68.6 | 46.9 | 240.503 | 240.345 | 0.158 | 24.00 |
| 23.12 | 7.71946 | 77.2 | 54.7 | 352.227 | 351.962 | 0.265 | 24.00 |
| 24.12 | 8.15885 | 78.2 | 57.2 | 398.698 | 398.390 | 0.308 | 24.00 |
| 25.12 | 6.17544 | 69.1 | 49.3 | 310.920 | 310.721 | 0.199 | 24.00 |
| 26.12 | 5.23275 | 68.3 | 47.4 | 250.992 | 250.834 | 0.158 | 24.00 |
| 27.12 | 5.41949 | 68.4 | 47.3 | 257.257 | 257.092 | 0.165 | 24.00 |
| 28.12 | 5.68691 | 68.5 | 48.3 | 281.257 | 281.072 | 0.185 | 24.00 |
| 29.12 | 5.87217 | 68.5 | 48.9 | 299.351 | 299.156 | 0.195 | 24.00 |
| 30.12 | 6.14224 | 68.6 | 49.7 | 324.890 | 324.675 | 0.215 | 24.00 |
| 31.12 | 6.55472 | 70.7 | 50.0 | 317.836 | 317.619 | 0.217 | 24.00 |
| 01.01 | 7.18413 | 76.4 | 53.0 | 307.599 | 307.390 | 0.209 | 24.00 |
| 02.01 | 7.66140 | 77.3 | 55.3 | 349.481 | 349.245 | 0.236 | 24.00 |
| 03.01 | 6.29830 | 70.7 | 50.6 | 314.975 | 314.769 | 0.206 | 24.00 |
| 04.01 | 5.62081 | 68.4 | 48.9 | 288.109 | 287.922 | 0.187 | 24.00 |
| 05.01 | 5.97980 | 68.5 | 49.7 | 317.877 | 317.427 | 0.450 | 24.00 |
| 06.01 | 6.37450 | 69.3 | 50.5 | 340.524 | 340.294 | 0.230 | 24.00 |
| 07.01 | 6.23683 | 69.0 | 50.5 | 337.299 | 337.076 | 0.223 | 24.00 |
| 08.01 | 6.35051 | 71.0 | 50.8 | 315.542 | 315.328 | 0.214 | 24.00 |
| 09.01 | 7.03480 | 75.3 | 52.4 | 306.824 | 306.621 | 0.203 | 24.00 |
| 10.01 | 6.08945 | 69.0 | 49.8 | 318.063 | 317.854 | 0.209 | 24.00 |
| 11.01 | 6.55015 | 69.0 | 50.9 | 361.721 | 361.475 | 0.246 | 24.00 |
| 12.01 | 5.87188 | 68.5 | 49.5 | 309.169 | 308.967 | 0.202 | 24.00 |
| 13.01 | 6.55120 | 71.6 | 51.0 | 317.667 | 317.452 | 0.215 | 24.00 |
| 14.01 | 6.54718 | 72.1 | 51.0 | 310.769 | 310.564 | 0.205 | 24.00 |
| 15.01 | 6.86246 | 72.8 | 52.0 | 329.213 | 328.989 | 0.224 | 24.00 |
| 16.01 | 7.88110 | 78.1 | 56.6 | 380.014 | 379.717 | 0.297 | 24.00 |
| Итого | 227.61477 | 70.6 | 49.9 | 11069.239 | 11061.554 | 7.685 | 888.00 |

Тотч.пер. = Tнар + Tмин + Tmax + Tdelta_t<мин + Tэл.пит + Tпроч.ав.
 888.00ч = 888.00ч + 0.00ч + 0.00ч + 0.00ч + 0.00ч + 0.00ч

| Т/С Отопление нарастающим итогом | Qтеп [Гкал] | Gпод [тонн] | Gобр [тонн] | Tнар [час] |
|-------------------------------------|----------------|----------------|----------------|---------------|
| 17-01-26 00:00 | 10551.99199 | 707035.824 | 706347.503 | 66547.95 |
| 11-12-25 00:00 | 10324.37722 | 695966.585 | 695285.949 | 65659.95 |

Расшифровка ошибок:
 (<) параметр < min
 (>) параметр > max
 (X) обрыв датчика
 (T) delta_t < min
 (R) перезапуск

| | | | | |
|-------|-----------|-----------|-----------|--------|
| Итого | 227.61477 | 11069.239 | 11061.554 | 888.00 |
|-------|-----------|-----------|-----------|--------|

(С) коррекц. часов
(#) электропитание

Тобщ = 888.00ч

Обновление 2.54 24-01-18 10ч НС-М-2.51 / НС-А-2.36 Q=G1 (Н1-Н2)

19.01.26 Подпись _____

МЕСЯЧНЫЙ ПРОТОКОЛ УЧЕТА ТЕПЛОВОЙ ЭНЕРГИИ И ТЕПЛОНОСИТЕЛЯ ЗА 12 мес 25 г.

Название потребителя _____ Абонент _____
 Адрес потребителя Любы Новоселовой 12А Телефон _____
 Ответственное лицо _____

Вычислитель ТС-201-2-2-1 Сер.ном. 22278 Расход под 0.100.. 25.000 м3/ч Ду 50 мм
 Отчетное число месяца 11 Отчетное время 00:00 Расход обр 0.100.. 25.000 м3/ч Ду 50 мм
 Расход п ротор 10.00 л/имп Ду 20 мм

| Дата | Qтеп [Гкал] | tпод [оС] | tобр [оС] | Gпод [тонн] | Gобр [тонн] | Gп [тонн] | Gпод-Gобр [тонн] | рпод [ат] | робр [ат] | Tнар [час] |
|-------|----------------|--------------|--------------|----------------|----------------|--------------|---------------------|--------------|--------------|---------------|
| 11.12 | 2.02369 | 75.7 | 69.2 | 309.478 | 308.645 | 0.00 | 0.833 | < | < | 24.00 |
| 12.12 | 2.08419 | 75.7 | 69.0 | 311.431 | 311.236 | 0.00 | 0.195 | < | < | 24.00 |
| 13.12 | 2.19437 | 77.9 | 70.5 | 293.542 | 293.312 | 0.00 | 0.230 | < | < | 24.00 |
| 14.12 | 2.30633 | 78.6 | 70.7 | 291.939 | 291.750 | 0.00 | 0.189 | < | < | 24.00 |
| 15.12 | 2.17946 | 78.6 | 71.0 | 286.919 | 286.727 | 0.00 | 0.192 | < | < | 24.00 |
| 16.12 | 2.16825 | 78.5 | 71.0 | 290.714 | 290.494 | 0.00 | 0.220 | < | < | 24.00 |
| 17.12 | 2.06612 | 76.7 | 69.8 | 297.488 | 297.339 | 0.00 | 0.149 | < | < | 24.00 |
| 18.12 | 2.10158 | 76.7 | 69.6 | 297.372 | 297.254 | 0.00 | 0.118 | < | < | 24.00 |
| 19.12 | 2.15736 | 76.7 | 69.4 | 298.611 | 298.484 | 0.00 | 0.127 | < | < | 24.00 |
| 20.12 | 2.09079 | 76.6 | 69.6 | 296.696 | 296.398 | 0.00 | 0.298 | < | < | 24.00 |
| 21.12 | 2.03905 | 76.7 | 69.8 | 298.770 | 298.638 | 0.00 | 0.132 | < | < | 24.00 |
| 22.12 | 2.12720 | 76.7 | 69.6 | 299.624 | 299.514 | 0.00 | -0.006 | < | < | 24.00 |
| 23.12 | 2.37214 | 85.4 | 77.4 | 298.503 | 298.320 | 0.00 | -0.012 | < | < | 24.00 |
| 24.12 | 2.55822 | 91.8 | 83.1 | 293.951 | 293.888 | 0.00 | 0.063 | < | < | 24.00 |
| 25.12 | 2.03884 | 75.6 | 68.4 | 282.241 | 282.142 | 0.00 | 0.099 | < | < | 24.00 |
| 26.12 | 2.21101 | 77.4 | 69.9 | 293.402 | 293.276 | 0.00 | 0.126 | < | < | 24.00 |
| 27.12 | 2.11009 | 77.3 | 70.3 | 298.317 | 298.197 | 0.00 | 0.120 | < | < | 24.00 |
| 28.12 | 2.15551 | 78.4 | 71.2 | 295.816 | 295.765 | 0.00 | -0.098 | < | < | 24.00 |
| 29.12 | 2.15106 | 78.6 | 71.5 | 301.618 | 301.528 | 0.00 | 0.090 | < | < | 24.00 |
| 30.12 | 2.11537 | 78.7 | 71.7 | 299.656 | 299.577 | 0.00 | 0.079 | < | < | 24.00 |
| 31.12 | 2.28408 | 80.2 | 72.6 | 299.003 | 298.939 | 0.00 | 0.064 | < | < | 24.00 |
| 01.01 | 2.18147 | 84.8 | 77.4 | 295.677 | 295.621 | 0.00 | -0.011 | < | < | 24.00 |
| 02.01 | 2.26667 | 87.1 | 79.3 | 289.126 | 288.736 | 0.00 | -0.095 | < | < | 24.00 |
| 03.01 | 2.14341 | 81.3 | 74.0 | 290.466 | 290.249 | 0.00 | 0.217 | < | < | 24.00 |
| 04.01 | 1.95716 | 76.7 | 69.8 | 283.476 | 283.375 | 0.00 | 0.101 | < | < | 24.00 |
| 05.01 | 2.06056 | 78.3 | 71.3 | 294.008 | 293.898 | 0.00 | 0.110 | < | < | 24.00 |
| 06.01 | 2.03258 | 79.9 | 73.1 | 298.325 | 298.252 | 0.00 | 0.073 | < | < | 24.00 |
| 07.01 | 2.12927 | 79.6 | 72.4 | 295.957 | 295.889 | 0.00 | 0.068 | < | < | 24.00 |
| 08.01 | 2.02862 | 78.9 | 72.0 | 294.406 | 294.358 | 0.00 | 0.048 | < | < | 24.00 |
| 09.01 | 2.30970 | 83.5 | 75.6 | 293.653 | 293.607 | 0.00 | 0.046 | < | < | 24.00 |
| 10.01 | 2.18379 | 79.9 | 72.4 | 288.885 | 288.804 | 0.00 | 0.081 | < | < | 24.00 |
| 11.01 | 2.19090 | 80.8 | 73.3 | 289.438 | 289.345 | 0.00 | 0.093 | < | < | 24.00 |
| 12.01 | 2.25754 | 76.8 | 68.8 | 282.312 | 282.236 | 0.00 | 0.076 | < | < | 24.00 |
| 13.01 | 2.30733 | 83.2 | 75.4 | 295.190 | 295.096 | 0.00 | 0.094 | < | < | 24.00 |
| 14.01 | 2.26369 | 85.2 | 77.5 | 295.364 | 295.300 | 0.00 | 0.064 | < | < | 24.00 |
| 15.01 | 2.30138 | 83.7 | 75.9 | 293.406 | 293.327 | 0.00 | 0.079 | < | < | 24.00 |
| 16.01 | 2.49401 | 91.7 | 83.4 | 297.463 | 297.396 | 0.00 | 0.067 | < | < | 24.00 |
| Итого | 80.64279 | 80.0' | 72.6' | 10912.243 | 10906.912 | 0.00 | -0.222 | 5.553 | | 888.00 |

Тотч.пер. = Tнар + Tmin + Tmax + Tdelta_t<мин + Тэл.пит + Тпроч.ав.
 888.00ч = 888.00ч + 0.00ч + 0.00ч + 0.00ч + 0.00ч + 0.00ч

| Т/С Отопление нарастающим итогом | Qтеп [Гкал] | Gпод [тонн] | Gобр [тонн] | Gп [тонн] | Tнар [час] |
|-------------------------------------|----------------|----------------|----------------|--------------|---------------|
| 17-01-26 00:00 | 6529.88273 | 857385.610 | 856929.189 | 84.03 | 79971.84 |
| 11-12-25 00:00 | 6449.23994 | 846473.367 | 846022.277 | 84.03 | 79083.84 |

Расшифровка ошибок:
 (<) параметр < min
 (>) параметр > max
 (X) обрыв датчика
 (T) delta_t < min
 (R) перезапуск

| | | | | | | |
|-------|----------|-----------|-----------|------|--------|--|
| Итого | 80.64279 | 10912.243 | 10906.912 | 0.00 | 888.00 | (С) коррекц. часов (#) электропитание |
|-------|----------|-----------|-----------|------|--------|--|

Тобщ = 888.00ч

Обновление 2.39 21-03-16 16ч НС-А-2.37 / НС-А-2.36 Q=G1 (Н1-Н2)

19.01.26 Подпись _____

МЕСЯЧНЫЙ ПРОТОКОЛ УЧЕТА ТЕПЛОВОЙ ЭНЕРГИИ И ТЕПЛОНОСИТЕЛЯ ЗА 12 мес 25 г.

Название потребителя _____ Абонент _____
 Адрес потребителя Любы Новоселовой 12А Телефон _____
 Ответственное лицо _____

Вычислитель ТС-201-0-2-1 Сер.ном. 32476 Расход под 0.100.. 25.000 м3/ч Ду 50 мм
 Отчетное число месяца 11 Отчетное время 00:00 Расход обр 0.100.. 25.000 м3/ч Ду 50 мм
 Расход п ротор 10.00 л/имп Ду 25 мм

| Дата | Qтеп [Гкал] | tпод [оС] | tобр [оС] | Gпод [тонн] | Gобр [тонн] | Gп [тонн] | Gпод-Gобр [тонн] | Tнар [час] |
|--------------|------------------|--------------|--------------|-----------------|-----------------|--------------|---------------------|---------------|
| 11.12 | 3.53902 | 75.2 | 45.8 | 120.618 | 120.502 | 0.00 | 0.116 | 24.00 |
| 12.12 | 3.41919 | 75.4 | 46.4 | 117.545 | 117.433 | 0.00 | 0.112 | 24.00 |
| 13.12 | 4.75996 | 77.9 | 49.3 | 166.233 | 166.079 | 0.00 | 0.154 | 24.00 |
| 14.12 | 5.04983 | 78.2 | 50.7 | 183.747 | 183.554 | 0.00 | 0.193 | 24.00 |
| 15.12 | 5.00656 | 78.2 | 51.6 | 187.808 | 187.591 | 0.00 | 0.217 | 24.00 |
| 16.12 | 4.15435 | 77.8 | 47.3 | 136.301 | 136.203 | 0.00 | 0.098 | 24.00 |
| 17.12 | 3.52152 | 76.1 | 45.5 | 115.180 | 115.092 | 0.00 | 0.088 | 24.00 |
| 18.12 | 3.72694 | 76.2 | 46.5 | 125.659 | 125.549 | 0.00 | 0.110 | 24.00 |
| 19.12 | 3.81602 | 76.2 | 47.3 | 132.333 | 132.207 | 0.00 | 0.126 | 24.00 |
| 20.12 | 4.01232 | 76.2 | 47.3 | 138.913 | 138.778 | 0.00 | 0.135 | 24.00 |
| 21.12 | 3.76767 | 76.2 | 46.7 | 127.874 | 127.759 | 0.00 | 0.115 | 24.00 |
| 22.12 | 3.86529 | 76.5 | 47.4 | 132.964 | 132.841 | 0.00 | 0.123 | 24.00 |
| 23.12 | 6.07158 | 88.5 | 56.9 | 192.286 | 192.229 | 0.00 | 0.057 | 24.00 |
| 24.12 | 6.36489 | 88.5 | 58.0 | 208.439 | 208.305 | 0.00 | 0.134 | 24.00 |
| 25.12 | 4.46646 | 74.9 | 50.2 | 181.316 | 181.040 | 0.00 | 0.276 | 24.00 |
| 26.12 | 3.81051 | 76.5 | 47.2 | 129.884 | 129.768 | 0.02 | 0.116 | 24.00 |
| 27.12 | 3.99027 | 77.1 | 47.3 | 133.900 | 133.790 | 0.00 | 0.110 | 24.00 |
| 28.12 | 4.23199 | 78.0 | 47.1 | 136.938 | 136.847 | 0.00 | 0.091 | 24.00 |
| 29.12 | 4.35880 | 78.2 | 47.8 | 143.478 | 143.376 | 0.00 | 0.102 | 24.00 |
| 30.12 | 4.60444 | 78.2 | 48.5 | 155.175 | 155.052 | 0.00 | 0.123 | 24.00 |
| 31.12 | 5.04681 | 80.9 | 49.4 | 160.457 | 160.380 | 0.00 | 0.077 | 24.00 |
| 01.01 | 5.61076 | 85.2 | 54.3 | 182.060 | 181.984 | 0.00 | 0.076 | 24.00 |
| 02.01 | 5.84243 | 86.2 | 55.6 | 191.247 | 191.169 | 0.00 | 0.078 | 24.00 |
| 03.01 | 4.68423 | 79.4 | 49.6 | 157.475 | 157.360 | 0.00 | 0.115 | 24.00 |
| 04.01 | 4.26451 | 76.4 | 48.4 | 152.171 | 152.010 | 0.00 | 0.161 | 24.00 |
| 05.01 | 4.47545 | 78.1 | 48.8 | 153.076 | 152.947 | 0.00 | 0.129 | 24.00 |
| 06.01 | 4.82204 | 80.0 | 49.2 | 156.485 | 156.394 | 0.00 | 0.091 | 24.00 |
| 07.01 | 4.74841 | 78.2 | 50.1 | 169.286 | 169.120 | 0.00 | 0.166 | 24.00 |
| 08.01 | 4.98914 | 79.5 | 50.8 | 174.075 | 173.927 | 0.00 | 0.148 | 24.00 |
| 09.01 | 5.40670 | 83.4 | 52.6 | 175.398 | 175.315 | 0.00 | 0.083 | 24.00 |
| 10.01 | 4.55835 | 78.9 | 48.5 | 150.182 | 150.080 | 0.00 | 0.102 | 24.00 |
| 11.01 | 4.91606 | 79.6 | 50.1 | 167.034 | 166.907 | 0.00 | 0.127 | 24.00 |
| 12.01 | 4.53492 | 76.7 | 50.1 | 171.099 | 170.890 | 0.00 | 0.209 | 24.00 |
| 13.01 | 5.09251 | 84.7 | 51.5 | 153.225 | 153.191 | 0.00 | 0.034 | 24.00 |
| 14.01 | 5.09105 | 83.2 | 51.5 | 160.820 | 160.752 | 0.00 | 0.068 | 24.00 |
| 15.01 | 5.30086 | 85.4 | 52.3 | 160.220 | 160.163 | 0.00 | 0.057 | 24.00 |
| 16.01 | 5.98229 | 91.8 | 56.0 | 167.057 | 166.982 | 0.00 | 0.075 | 24.00 |
| Итого | 171.90413 | 80.0' | 50.2' | 5767.958 | 5763.566 | 0.02 | 4.392 | 888.00 |

Тотч.пер. = Tнар + Tмин + Tмакс + Tdelta_t<мин + Tэл.пит + Tпроч.ав.
 888.00ч = 888.00ч + 0.00ч + 0.00ч + 0.00ч + 0.00ч + 0.00ч

| Т/С Ввод т/сети нарастающим итогом | Qтеп [Гкал] | Gпод [тонн] | Gобр [тонн] | Gп [тонн] | Tнар [час] |
|---------------------------------------|----------------|----------------|----------------|--------------|---------------|
| 17-01-26 00:00 | 4060.31811 | 196531.461 | 196144.977 | 8.78 | 32898.18 |
| 11-12-25 00:00 | 3888.41398 | 190763.503 | 190381.411 | 8.76 | 32010.18 |

Расшифровка ошибок:
 (<) параметр < min
 (>) параметр > max
 (X) обрыв датчика
 (T) delta_t < min
 (R) перезапуск

| | | | | | | |
|-------|-----------|----------|----------|------|--------|--|
| Итого | 171.90413 | 5767.958 | 5763.566 | 0.02 | 888.00 | (С) коррекц. часов (#) электропитание |
|-------|-----------|----------|----------|------|--------|--|

Тобщ = 888.00ч

Обновление 2.49 09-02-22 11ч НС-М-2.49 / НС-А-2.36 Q=G1 (Н1-Н2)

19.01.26 Подпись _____

МЕСЯЧНЫЙ ПРОТОКОЛ УЧЕТА ТЕПЛОВОЙ ЭНЕРГИИ И ТЕПЛОНОСИТЕЛЯ ЗА 12 мес 25 г.

Название потребителя _____ Абонент _____
 Адрес потребителя Маршала Бирюзова 2А Телефон _____
 Ответственное лицо _____

Вычислитель ТС-201-0-2-1-1 Сер.ном. 132935 Расход под 0.64.. 160.00 м3/ч Ду 100 мм
 Отчетное число месяца 11 Отчетное время 00:00 Расход обр 0.64.. 160.00 м3/ч Ду 100 мм
 Расход п ротор 10.00 л/имп Ду 25 мм

| Дата | Qтеп [Гкал] | tпод [оС] | tобр [оС] | Gпод [тонн] | Gобр [тонн] | Gп [тонн] | Gпод-Gобр [тонн] | Tнар [час] |
|-------|----------------|--------------|--------------|----------------|----------------|--------------|---------------------|---------------|
| 11.12 | 20.5780 | 106.7 | 93.4 | 1551.34 | 1548.81 | 0.00 | 2.53 | 24.00 |
| 12.12 | 20.0404 | 106.2 | 93.0 | 1511.04 | 1508.61 | 0.00 | 2.43 | 24.00 |
| 13.12 | 30.4326 | 112.4 | 95.4 | 1790.22 | 1789.17 | 0.00 | 1.05 | 24.00 |
| 14.12 | 29.5182 | 109.3 | 92.6 | 1768.44 | 1767.46 | 0.00 | 0.98 | 24.00 |
| 15.12 | 25.5065 | 109.1 | 94.3 | 1728.92 | 1727.89 | 0.00 | 1.03 | 24.00 |
| 16.12 | 20.1514 | 109.5 | 96.9 | 1601.10 | 1598.84 | 0.00 | 2.26 | 24.00 |
| 17.12 | 19.5562 | 108.4 | 94.1 | 1365.38 | 1363.81 | 0.00 | 1.57 | 24.00 |
| 18.12 | 19.2811 | 105.4 | 95.0 | 1856.61 | 1852.36 | 0.00 | 4.25 | 24.00 |
| 19.12 | 18.4074 | 102.0 | 92.0 | 1837.23 | 1832.68 | 0.00 | 4.55 | 24.00 |
| 20.12 | 18.8899 | 102.3 | 92.0 | 1840.19 | 1836.45 | 0.00 | 3.74 | 24.00 |
| 21.12 | 19.1800 | 107.9 | 96.6 | 1689.79 | 1687.20 | 0.00 | 2.59 | 24.00 |
| 22.12 | 21.7934 | 104.9 | 91.7 | 1655.12 | 1652.72 | 0.00 | 2.40 | 24.00 |
| 23.12 | 34.6143 | 134.0 | 114.3 | 1759.67 | 1757.96 | 0.00 | 1.71 | 24.00 |
| 24.12 | 33.8688 | > 135.8 | 116.0 | 1715.65 | 1713.83 | 0.00 | 1.82 | 23.97 |
| 25.12 | 26.6946 | 106.0 | 91.9 | 1888.60 | 1886.31 | 0.00 | 2.29 | 24.00 |
| 26.12 | 25.4859 | 102.3 | 88.5 | 1854.05 | 1850.86 | 0.00 | 3.19 | 24.00 |
| 27.12 | 25.2148 | 100.0 | 87.7 | 2056.34 | 2052.14 | 0.00 | 4.20 | 24.00 |
| 28.12 | 25.0150 | 101.5 | 88.6 | 1938.51 | 1935.26 | 0.00 | 3.25 | 24.00 |
| 29.12 | 26.0301 | 103.2 | 89.9 | 1956.37 | 1952.96 | 0.00 | 3.41 | 24.00 |
| 30.12 | 26.4651 | 104.2 | 90.4 | 1919.40 | 1916.48 | 0.00 | 2.92 | 24.00 |
| 31.12 | 31.2664 | 113.3 | 96.5 | 1861.67 | 1860.19 | 0.00 | 1.48 | 24.00 |
| 01.01 | 36.4011 | 131.1 | 109.9 | 1718.24 | 1716.06 | 0.00 | 2.18 | 24.00 |
| 02.01 | 36.0551 | 128.8 | 107.8 | 1716.88 | 1714.55 | 0.00 | 2.33 | 24.00 |
| 03.01 | 27.9836 | 107.6 | 92.6 | 1866.22 | 1864.34 | 0.00 | 1.88 | 24.00 |
| 04.01 | 24.3330 | 99.4 | 87.5 | 2038.01 | 2033.70 | 0.00 | 4.31 | 24.00 |
| 05.01 | 26.6782 | 104.0 | 90.3 | 1958.19 | 1954.94 | 0.00 | 3.25 | 24.00 |
| 06.01 | 29.4571 | 110.8 | 94.8 | 1841.75 | 1840.44 | 0.00 | 1.31 | 24.00 |
| 07.01 | 28.1824 | 108.1 | 93.1 | 1872.17 | 1870.21 | 0.00 | 1.96 | 24.00 |
| 08.01 | 30.2913 | 112.7 | 96.5 | 1872.81 | 1871.43 | 0.00 | 1.38 | 24.00 |
| 09.01 | 33.5249 | 120.2 | 101.3 | 1774.12 | 1772.70 | 0.00 | 1.42 | 24.00 |
| 10.01 | 27.3842 | 105.7 | 91.3 | 1898.38 | 1896.14 | 0.00 | 2.24 | 24.00 |
| 11.01 | 30.1043 | 111.1 | 95.2 | 1892.31 | 1890.93 | 0.00 | 1.38 | 24.00 |
| 12.01 | 27.1762 | 104.7 | 90.4 | 1904.40 | 1902.34 | 0.00 | 2.06 | 24.00 |
| 13.01 | 31.6805 | 115.6 | 98.0 | 1798.26 | 1797.02 | 0.00 | 1.24 | 24.00 |
| 14.01 | 30.3844 | 112.9 | 96.1 | 1815.09 | 1813.72 | 0.00 | 1.37 | 24.00 |
| 15.01 | 30.6918 | 115.5 | 98.6 | 1810.54 | 1808.79 | 0.00 | 1.75 | 24.00 |
| 16.01 | T 33.7904 | 135.7 | 113.0 | < 1491.74 | < 1484.78 | 0.00 | -0.38 | 7.34 |
| Итого | 1002.1086 | 110.7' | 95.6' | 66414.75 | 66324.08 | 0.00 | -0.38 | 91.05 |

Тотч.пер. = Tнар + Tмин + Tмакс + Tdelta_t<мин + Tэл.пит + Tпроч.ав.
 888.00ч = 887.50ч + 0.43ч + 0.00ч + 0.02ч + 0.00ч + 0.05ч

| Т/С Ввод т/сети нарастающим итогом | Qтеп [Гкал] | Gпод [тонн] | Gобр [тонн] | Gп [тонн] | Tнар [час] |
|---------------------------------------|----------------|----------------|----------------|--------------|---------------|
| 17-01-26 00:00 | 55294.1458 | 4285257.41 | 4273363.83 | 62.33 | 95195.30 |
| 11-12-25 00:00 | 54292.0372 | 4218842.66 | 4207039.75 | 62.33 | 94307.80 |

Расшифровка ошибок:
 (<) параметр < min
 (>) параметр > max
 (X) обрыв датчика
 (T) delta_t < min
 (R) перезапуск

| | | | | | | |
|-------|-----------|----------|----------|------|--------|--|
| Итого | 1002.1086 | 66414.75 | 66324.08 | 0.00 | 887.50 | (С) коррекц. часов (#) электропитание |
|-------|-----------|----------|----------|------|--------|--|

Тобщ = 888.00ч

Обновление 2.49 12-11-13 10ч НС-М-2.49 / НС-А-2.36 Q=G1 (Н1-Н2)

19.01.26 Подпись _____

МЕСЯЧНЫЙ ПРОТОКОЛ УЧЕТА ТЕПЛОВОЙ ЭНЕРГИИ И ТЕПЛОНОСИТЕЛЯ ЗА 12 мес 25 г.

Название потребителя _____ Абонент _____
 Адрес потребителя Маршала Бирюзова 14 Телефон _____
 Ответственное лицо _____

Вычислитель ТС-0200-2-2-1-1-0-Т Сер.ном. 221509 Расход под 0.050.. 12.500 м3/ч Ду 40 мм
 Отчетное число месяца 11 Отчетное время 00:00 Расход обр 0.050.. 12.500 м3/ч Ду 40 мм

| Дата | Qтеп [Гкал] | tпод [оС] | tобр [оС] | Gпод [тонн] | Gобр [тонн] | Gпод-Gобр [тонн] | рпод [ат] | робр [ат] | Tнар [час] |
|--------------|------------------|--------------|--------------|-----------------|-----------------|---------------------|--------------|--------------|---------------|
| 11.12 | 2.35968 | 76.9 | 53.4 | 100.450 | 99.992 | 0.458 | 5.7 | 4.4 | 24.00 |
| 12.12 | 2.42081 | 78.1 | 54.1 | 101.147 | 100.683 | 0.464 | 5.6 | 4.4 | 24.00 |
| 13.12 | 2.73622 | 84.0 | 55.5 | 95.975 | 95.514 | 0.461 | 5.5 | 4.4 | 24.00 |
| 14.12 | 2.78459 | 84.7 | 55.4 | 94.682 | 94.217 | 0.465 | 5.5 | 4.5 | 24.00 |
| 15.12 | 2.91531 | 86.6 | 56.4 | 96.190 | 95.710 | 0.480 | 5.5 | 4.5 | 24.00 |
| 16.12 | 2.67303 | 81.8 | 55.2 | 100.236 | 99.754 | 0.482 | 5.6 | 4.5 | 24.00 |
| 17.12 | 2.55486 | 79.2 | 55.0 | 105.192 | 104.697 | 0.495 | 5.8 | 4.5 | 24.00 |
| 18.12 | 2.42444 | 77.6 | 53.0 | 98.608 | 98.146 | 0.462 | 5.6 | 4.5 | 24.00 |
| 19.12 | 2.30133 | 76.0 | 51.1 | 92.219 | 91.795 | 0.424 | 5.5 | 4.5 | 24.00 |
| 20.12 | 2.27896 | 75.7 | 50.0 | 88.432 | 88.034 | 0.398 | 5.4 | 4.4 | R# 24.00 |
| 21.12 | 2.42039 | 78.4 | 52.0 | 91.944 | 91.517 | 0.427 | 5.5 | 4.4 | 24.00 |
| 22.12 | 2.47141 | 78.8 | 52.7 | 94.626 | 94.192 | 0.434 | 5.5 | 4.4 | 24.00 |
| 23.12 | 3.00018 | 86.4 | 56.3 | 99.583 | 99.108 | 0.475 | 5.7 | 4.5 | 24.00 |
| 24.12 | 3.20124 | 89.5 | 57.6 | 100.156 | 99.676 | 0.480 | 5.7 | 4.5 | 24.00 |
| 25.12 | 2.85023 | 83.6 | 55.7 | 102.037 | 101.559 | 0.478 | 5.7 | 4.5 | 24.00 |
| 26.12 | 2.57086 | 78.7 | 53.9 | 103.585 | 103.104 | 0.481 | 5.7 | 4.5 | 24.00 |
| 27.12 | 2.54377 | 78.6 | 53.6 | 101.704 | 101.223 | 0.481 | 5.7 | 4.5 | 24.00 |
| 28.12 | 2.68758 | 81.6 | 55.3 | 102.122 | 101.637 | 0.485 | 5.7 | 4.5 | 24.00 |
| 29.12 | 2.63119 | 80.8 | 54.8 | 101.017 | 100.544 | 0.473 | 5.7 | 4.5 | 24.00 |
| 30.12 | 2.66982 | 81.5 | 54.9 | 100.330 | 99.859 | 0.471 | 5.6 | 4.5 | 24.00 |
| 31.12 | 2.81293 | 84.0 | 55.8 | 99.862 | 99.387 | 0.475 | 5.6 | 4.5 | 24.00 |
| 01.01 | 3.29942 | 92.1 | 59.9 | 102.511 | 102.028 | 0.483 | 5.7 | 4.5 | 24.00 |
| 02.01 | 3.37207 | 93.4 | 60.4 | 102.151 | 101.703 | 0.448 | 5.7 | 4.5 | 24.00 |
| 03.01 | 2.86403 | 84.8 | 57.0 | 103.200 | 102.778 | 0.422 | 5.7 | 4.5 | 24.00 |
| 04.01 | 2.56009 | 79.3 | 54.0 | 101.091 | 100.703 | 0.388 | 5.7 | 4.5 | 24.00 |
| 05.01 | 2.62024 | 80.3 | 54.1 | 99.873 | 99.479 | 0.394 | 5.7 | 4.5 | 24.00 |
| 06.01 | 2.87023 | 84.4 | 56.2 | 101.646 | 101.229 | 0.417 | 5.7 | 4.5 | 24.00 |
| 07.01 | 2.76892 | 82.8 | 55.4 | 101.127 | 100.715 | 0.412 | 5.7 | 4.5 | 24.00 |
| 08.01 | 2.79093 | 83.1 | 55.4 | 100.647 | 100.232 | 0.415 | 5.7 | 4.5 | 24.00 |
| 09.01 | 3.07031 | 88.0 | 58.0 | 102.098 | 101.670 | 0.428 | 5.7 | 4.5 | 24.00 |
| 10.01 | 2.78291 | 82.9 | 55.7 | 102.134 | 101.685 | 0.449 | 5.7 | 4.5 | 24.00 |
| 11.01 | 2.78156 | 82.8 | 55.3 | 100.819 | 100.343 | 0.476 | 5.7 | 4.5 | 24.00 |
| 12.01 | 2.73247 | 82.0 | 55.1 | 101.440 | 100.960 | 0.480 | 5.7 | 4.5 | 24.00 |
| 13.01 | 3.08898 | 88.1 | 58.1 | 102.783 | 102.283 | 0.500 | 5.7 | 4.5 | 24.00 |
| 14.01 | 2.97676 | 86.4 | 57.5 | 102.948 | 102.443 | 0.505 | 5.7 | 4.5 | 24.00 |
| 15.01 | 2.84470 | 83.8 | 55.5 | 100.073 | 99.586 | 0.487 | 5.7 | 4.5 | R# 24.00 |
| 16.01 | T 3.16867 | 88.8 | 57.7 < | 100.793 < | 100.290 | 0.503 | 5.7 | 4.5 | R# 23.54 |
| Итого | 101.90112 | 82.9 | 55.3 | 3695.431 | 3678.475 | 16.956 | 5.7 | 4.5 | 887.54 |

Тотч.пер. = Tнар + Tмакс + Tdelta_t<мин + Tэл.пит + Tпроч.ав. Tmin = 0.07ч
 888.00ч = 887.54ч + 0.00ч + 0.09ч + 0.25ч + 0.05ч

| Т/С Отопление нарастающим итогом | Qтеп [Гкал] | Gпод [тонн] | Gобр [тонн] | Tнар [час] |
|-------------------------------------|----------------|----------------|----------------|---------------|
| 17-01-26 00:00 | 1719.94763 | 70690.525 | 70295.046 | 17692.64 |
| 11-12-25 00:00 | 1618.04651 | 66995.094 | 66616.571 | 16805.10 |

Расшифровка ошибок:
 (<) параметр < min
 (>) параметр > max
 (X) обрыв датчика
 (T) delta_t < min
 (R) перезапуск

| | | | | |
|-------|-----------|----------|----------|--------|
| Итого | 101.90112 | 3695.431 | 3678.475 | 887.54 |
|-------|-----------|----------|----------|--------|

(С) коррекц. часов
 (#) электропитание

Тобщ = 888.00ч

ВИС.Т.НС-М-2.59 / НС-А-2.57 CRC 45297 HcSet 2.59 21-09-22 08ч

Q=G1 (H1-H2)

19.01.26 Подпись _____

МЕСЯЧНЫЙ ПРОТОКОЛ УЧЕТА ТЕПЛОВОЙ ЭНЕРГИИ И ТЕПЛОНОСИТЕЛЯ ЗА 12 мес 25 г.

Название потребителя _____ Абонент _____
 Адрес потребителя Маршала Жукова 1А Телефон _____
 Ответственное лицо _____

Вычислитель ТС-201-2-2-1 Сер.ном. 32466 Расход под 0.100.. 25.000 м3/ч Ду 50 мм
 Отчетное число месяца 11 Отчетное время 00:00 Расход обр 0.100.. 25.000 м3/ч Ду 50 мм
 Расход п ротор 10.00 л/имп Ду 20 мм

| Дата | Qтеп [Гкал] | tпод [оС] | tобр [оС] | Gпод [тонн] | Gобр [тонн] | Gп [тонн] | Gпод-Gобр [тонн] | рпод [ат] | робр [ат] | Tнар [час] |
|--------------|------------------|--------------|--------------|------------------|------------------|--------------|---------------------|--------------|--------------|---------------|
| 11.12 | 4.83176 | 76.0 | 58.4 | 274.682 | 284.795 | 0.00 | -10.113 | < | < | 24.00 |
| 12.12 | 4.48907 | 76.2 | 57.5 | 240.964 | 249.770 | 0.00 | -8.806 | < | < | 24.00 |
| 13.12 | 5.44581 | 78.8 | 60.3 | 294.920 | 305.631 | 0.00 | -10.711 | < | < | 24.00 |
| 14.12 | 5.51061 | 79.0 | 60.3 | 293.981 | 304.595 | 0.00 | -10.614 | < | < | 24.00 |
| 15.12 | 5.48791 | 79.0 | 60.2 | 290.754 | 301.244 | 0.00 | -10.490 | < | < | 24.00 |
| 16.12 | 5.41097 | 78.5 | 60.3 | 296.193 | 306.666 | 0.00 | -10.473 | < | < | 24.00 |
| 17.12 | 5.10757 | 76.9 | 58.8 | 281.717 | 291.607 | 0.00 | -9.890 | < | < | 24.00 |
| 18.12 | 5.27207 | 77.0 | 59.5 | 301.127 | 311.581 | 0.00 | -10.454 | < | < | 24.00 |
| 19.12 | 5.25047 | 77.0 | 59.3 | 297.413 | 307.630 | 0.00 | -10.217 | < | < | 24.00 |
| 20.12 | 5.28124 | 77.0 | 59.5 | 301.055 | 311.229 | 0.00 | -10.174 | < | < | 24.00 |
| 21.12 | 5.35406 | 77.0 | 59.3 | 301.927 | 312.079 | 0.00 | -10.152 | < | < | 24.00 |
| 22.12 | 5.24868 | 77.3 | 59.5 | 294.971 | 304.550 | 0.00 | -9.579 | < | < | 24.00 |
| 23.12 | 6.70550 | 89.2 | 67.0 | 301.338 | 312.064 | 0.00 | -10.726 | < | < | 24.00 |
| 24.12 | 6.56960 | 89.4 | 66.4 | 285.521 | 295.391 | 0.00 | -9.870 | < | < | 24.00 |
| 25.12 | 5.25215 | 76.0 | 57.8 | 288.979 | 297.323 | 0.00 | -8.344 | < | < | 24.00 |
| 26.12 | 5.35704 | 77.4 | 60.0 | 307.429 | 316.240 | 0.00 | -8.811 | < | < | 24.00 |
| 27.12 | 5.41377 | 78.1 | 60.7 | 311.507 | 319.086 | 0.00 | -7.579 | < | < | 24.00 |
| 28.12 | 5.52160 | 79.0 | 61.2 | 310.896 | 318.963 | 0.00 | -8.067 | < | < | 24.00 |
| 29.12 | 5.50595 | 79.2 | 62.0 | 321.199 | 329.392 | 0.00 | -8.193 | < | < | 24.00 |
| 30.12 | 5.75698 | 79.2 | 62.1 | 338.517 | 346.980 | 0.00 | -8.463 | < | < | 24.00 |
| 31.12 | 8.53107 | 81.9 | 56.9 | 341.490 | 348.994 | 0.00 | -7.504 | < | < | 24.00 |
| 01.01 | 8.92379 | 86.1 | 59.3 | 333.251 | 340.638 | 0.00 | -7.387 | < | < | 24.00 |
| 02.01 | 9.03097 | 87.0 | 59.4 | 326.754 | 334.680 | 0.00 | -7.926 | < | < | 24.00 |
| 03.01 | 8.07105 | 80.3 | 55.6 | 327.483 | 334.605 | 0.00 | -7.122 | < | < | 24.00 |
| 04.01 | 7.21438 | 77.4 | 55.2 | 326.437 | 333.505 | 0.00 | -7.068 | < | < | 24.00 |
| 05.01 | 5.47841 | 79.0 | 62.7 | 336.257 | 343.186 | 0.00 | -6.929 | < | < | 24.00 |
| 06.01 | 5.69840 | 81.0 | 64.2 | 338.887 | 345.911 | 0.00 | -7.024 | < | < | 24.00 |
| 07.01 | 5.33196 | 79.1 | 63.3 | 335.586 | 342.703 | 0.00 | -7.117 | < | < | 24.00 |
| 08.01 | 5.60576 | 80.5 | 63.8 | 335.831 | 343.580 | 0.00 | -7.749 | < | < | 24.00 |
| 09.01 | 6.05153 | 84.3 | 65.1 | 315.498 | 324.488 | 0.00 | -8.990 | < | < | 24.00 |
| 10.01 | 5.50087 | 79.8 | 63.1 | 329.417 | 337.891 | 0.00 | -8.474 | < | < | 24.00 |
| 11.01 | 5.64565 | 80.5 | 63.3 | 327.034 | 335.169 | 0.00 | -8.135 | < | < | 24.00 |
| 12.01 | 5.24689 | 77.6 | 60.8 | 313.030 | 319.792 | 0.00 | -6.762 | < | < | 24.00 |
| 13.01 | 6.16347 | 85.8 | 67.4 | 334.812 | 343.204 | 0.00 | -8.392 | < | < | 24.00 |
| 14.01 | 5.97461 | 84.0 | 65.9 | 330.634 | 338.552 | 0.00 | -7.918 | < | < | 24.00 |
| 15.01 | 6.22227 | 86.5 | 67.7 | 331.638 | 339.486 | 0.00 | -7.848 | < | < | 24.00 |
| 16.01 | 7.05087 | 92.8 | 70.5 | 316.557 | 325.117 | 0.00 | -8.560 | < | < | 24.00 |
| Итого | 220.51476 | 80.7' | 61.5' | 11535.686 | 11858.317 | 0.00 | -322.631 | | | 888.00 |

Тотч.пер. = Tнар + Tмин + Tмакс + Tdelta_t<мин + Tэл.пит + Tпроч.ав.
 888.00ч = 888.00ч + 0.00ч + 0.00ч + 0.00ч + 0.00ч + 0.00ч

| Т/С Отопление нарастающим итогом | Qтеп [Гкал] | Gпод [тонн] | Gобр [тонн] | Gп [тонн] | Tнар [час] |
|-------------------------------------|----------------|----------------|----------------|--------------|---------------|
| 17-01-26 00:00 | 964.56977 | 53512.524 | 54908.133 | 0.00 | 7620.12 |
| 11-12-25 00:00 | 744.05501 | 41976.838 | 43049.816 | 0.00 | 6732.12 |

Расшифровка ошибок:
 (<) параметр < min
 (>) параметр > max
 (X) обрыв датчика
 (T) delta_t < min
 (R) перезапуск

| | | | | | | |
|-------|-----------|-----------|-----------|------|--------|--|
| Итого | 220.51476 | 11535.686 | 11858.317 | 0.00 | 888.00 | (С) коррекц. часов (#) электропитание |
|-------|-----------|-----------|-----------|------|--------|--|

Тобщ = 888.00ч

Обновление 2.49 16-02-25 12ч НС-А-2.49 / НС-А-2.36 Q=G1 (Н1-Н2)

19.01.26 Подпись _____

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: . , . 14
:

| | | | | | | ,C | | | | : : | | C |
|-------|--------|----------|----------|----------|----------|------|------|---|---|----------|--------|-----|
| | | V | V | | | | | P | P | | | |
| 11.12 | 1.582 | 77.648 | 75.112 | 76.282 | 74.588 | 60.6 | 39.9 | | | 00:00:00 | 1.695 | 5.0 |
| 12.12 | 1.555 | 77.617 | 75.095 | 76.264 | 74.564 | 60.4 | 40.0 | | | 00:00:00 | 1.700 | 5.0 |
| 13.12 | 1.529 | 76.617 | 74.113 | 75.325 | 73.618 | 59.3 | 38.9 | | | 00:14:32 | 1.707 | 5.0 |
| 14.12 | 1.603 | 78.058 | 75.460 | 76.746 | 74.947 | 59.6 | 38.7 | | | 00:00:00 | 1.799 | 5.0 |
| 15.12 | 1.641 | 78.105 | 75.471 | 76.781 | 74.951 | 60.1 | 38.7 | | | 00:00:00 | 1.830 | 5.0 |
| 16.12 | 1.567 | 77.193 | 74.663 | 75.926 | 74.157 | 59.0 | 38.4 | | | 00:00:00 | 1.769 | 5.0 |
| 17.12 | 1.566 | 77.060 | 74.265 | 75.785 | 73.747 | 59.4 | 38.7 | | | 00:00:00 | 2.038 | 5.0 |
| 18.12 | 1.556 | 75.683 | 73.166 | 73.603 | 72.081 | 59.4 | 38.2 | | | 00:00:00 | 1.522 | 5.0 |
| 19.12 | 1.545 | 75.645 | 73.018 | 74.409 | 72.522 | 59.0 | 38.2 | | | 00:00:00 | 1.886 | 5.0 |
| 20.12 | 1.554 | 75.618 | 72.897 | 74.360 | 72.429 | 59.0 | 38.0 | | | 00:00:00 | 1.931 | 5.0 |
| 21.12 | 1.550 | 75.651 | 72.987 | 74.391 | 72.522 | 59.0 | 38.1 | | | 00:00:00 | 1.868 | 5.0 |
| 22.12 | 1.074 | 51.262 | 49.590 | 50.036 | 48.921 | 58.5 | 37.0 | | | 00:00:00 | 1.116 | 5.0 |
| 23.12 | 1.666 | 82.093 | 79.575 | 80.749 | 79.002 | 59.5 | 38.8 | | | 00:00:00 | 1.747 | 5.0 |
| 24.12 | 1.912 | 91.722 | 88.307 | 90.075 | 87.654 | 61.7 | 40.4 | | | 00:00:00 | 2.421 | 5.0 |
| 25.12 | 1.571 | 90.390 | 88.263 | 88.485 | 87.282 | 60.5 | 42.7 | | | 00:00:00 | 1.204 | 5.0 |
| 26.12 | 1.818 | 115.527 | 112.974 | 113.687 | 112.047 | 58.1 | 42.1 | | | 00:42:16 | 1.640 | 5.0 |
| 27.12 | 1.830 | 117.463 | 114.710 | 115.518 | 113.813 | 58.3 | 42.4 | | | 00:00:00 | 1.704 | 5.0 |
| 28.12 | 1.767 | 116.907 | 114.235 | 114.994 | 113.336 | 57.9 | 42.5 | | | 00:00:00 | 1.658 | 5.0 |
| 29.12 | 1.741 | 116.456 | 113.819 | 114.586 | 112.912 | 57.6 | 42.4 | | | 00:00:00 | 1.675 | 5.0 |
| 30.12 | 1.726 | 115.666 | 113.108 | 113.842 | 112.216 | 57.2 | 42.0 | | | 00:00:00 | 1.626 | 5.0 |
| 31.12 | 1.788 | 114.421 | 111.565 | 112.540 | 110.672 | 58.4 | 42.5 | | | 00:00:00 | 1.869 | 5.0 |
| 01.01 | 1.924 | 113.864 | 111.064 | 111.862 | 110.153 | 60.4 | 43.2 | | | 00:00:00 | 1.710 | 5.0 |
| 02.01 | 1.929 | 112.990 | 110.139 | 111.031 | 109.248 | 60.1 | 42.7 | | | 00:00:00 | 1.783 | 5.0 |
| 03.01 | 1.867 | 112.800 | 109.795 | 110.913 | 108.918 | 59.1 | 42.3 | | | 00:00:00 | 1.995 | 5.0 |
| 04.01 | 1.796 | 112.634 | 109.470 | 110.808 | 108.596 | 58.3 | 42.0 | | | 00:00:00 | 2.212 | 5.0 |
| 05.01 | 1.808 | 112.253 | 109.050 | 110.439 | 108.158 | 58.5 | 42.1 | | | 00:00:00 | 2.281 | 5.0 |
| 06.01 | 1.874 | 111.935 | 108.729 | 110.071 | 107.795 | 59.7 | 42.7 | | | 00:00:00 | 2.276 | 5.0 |
| 07.01 | 1.980 | 111.758 | 108.462 | 109.793 | 107.484 | 61.6 | 43.6 | | | 00:00:00 | 2.309 | 5.0 |
| 08.01 | 2.110 | 111.271 | 107.955 | 109.125 | 106.898 | 64.8 | 45.5 | | | 00:00:00 | 2.227 | 5.0 |
| 09.01 | 2.135 | 109.967 | 106.661 | 107.841 | 105.633 | 64.9 | 45.1 | | | 00:00:00 | 2.208 | 5.0 |
| 10.01 | 2.116 | 110.603 | 107.275 | 108.458 | 106.223 | 65.0 | 45.5 | | | 00:00:00 | 2.235 | 5.0 |
| : | 53.679 | 2976.876 | 2890.992 | 2924.724 | 2867.084 | 59.9 | 41.5 | | | 00:56:48 | 57.640 | |

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| 11.12.2025 | 00:00:00 | 2409.49 | 195877.8 | 191151.8 |
|------------|----------|---------|----------|----------|
| 11.01.2026 | 00:00:00 | 2463.17 | 198802.5 | 194018.9 |

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| T | T | T | Tmin | Tmax | Tdt | T | T |
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| 744:00:00 | 727:56:40 | 016:03:20 | 014:43:24 | 000:00:00 | 013:08:16 | 000:00:00 | 000:56:48 |

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|-------|--------|----------|----------|----------|---------|------|------|---|---|----------|---------|-----|
| | | V | V | | | | | P | P | | | |
| 11.12 | 0.984 | 42.426 | 32.850 | 41.617 | 32.448 | 64.6 | 51.1 | | | 00:00:00 | 9.170 | 5.0 |
| 12.12 | 0.976 | 42.228 | 32.751 | 41.426 | 32.350 | 64.5 | 51.0 | | | 00:00:00 | 9.076 | 5.0 |
| 13.12 | 0.927 | 41.023 | 32.511 | 40.243 | 32.108 | 64.5 | 50.7 | | | 00:14:32 | 8.136 | 5.0 |
| 14.12 | 1.044 | 43.030 | 32.261 | 42.226 | 31.876 | 64.0 | 50.4 | | | 00:00:00 | 10.350 | 5.0 |
| 15.12 | 0.967 | 41.947 | 32.571 | 41.168 | 32.187 | 63.7 | 50.0 | | | 00:00:00 | 8.982 | 5.0 |
| 16.12 | 0.907 | 41.061 | 32.860 | 40.300 | 32.476 | 63.7 | 49.9 | | | 00:00:00 | 7.824 | 5.0 |
| 17.12 | 0.959 | 41.940 | 32.771 | 41.165 | 32.388 | 63.6 | 49.8 | | | 00:00:00 | 8.777 | 5.0 |
| 18.12 | 0.939 | 41.438 | 32.621 | 40.667 | 32.237 | 63.8 | 50.0 | | | 00:00:00 | 8.430 | 5.0 |
| 19.12 | 0.964 | 41.647 | 32.721 | 40.850 | 32.325 | 64.8 | 50.8 | | | 00:00:00 | 8.525 | 5.0 |
| 20.12 | 1.028 | 42.358 | 32.231 | 41.544 | 31.839 | 64.9 | 50.9 | | | 00:00:00 | 9.705 | 5.0 |
| 21.12 | 1.004 | 41.845 | 32.251 | 41.037 | 31.859 | 65.1 | 50.9 | | | 00:00:00 | 9.178 | 5.0 |
| 22.12 | 0.944 | 41.074 | 32.441 | 40.288 | 32.050 | 64.8 | 50.7 | | | 00:00:00 | 8.238 | 5.0 |
| 23.12 | 0.959 | 41.124 | 32.351 | 40.341 | 31.967 | 64.6 | 50.2 | | | 00:00:00 | 8.374 | 5.0 |
| 24.12 | 0.873 | 39.754 | 32.441 | 39.015 | 32.070 | 63.8 | 49.2 | | | 00:00:00 | 6.945 | 5.0 |
| 25.12 | 0.931 | 37.437 | 27.961 | 36.738 | 27.636 | 63.9 | 49.6 | | | 00:00:00 | 9.102 | 5.0 |
| 26.12 | 0.984 | 42.307 | 32.830 | 41.510 | 32.428 | 64.2 | 50.5 | | | 00:42:16 | 9.082 | 5.0 |
| 27.12 | 1.167 | 46.134 | 34.030 | 45.238 | 33.608 | 65.3 | 51.4 | | | 00:00:00 | 11.630 | 5.0 |
| 28.12 | 1.111 | 45.541 | 34.180 | 44.672 | 33.762 | 64.7 | 51.1 | | | 00:00:00 | 10.910 | 5.0 |
| 29.12 | 1.040 | 44.093 | 33.850 | 43.255 | 33.439 | 64.5 | 50.9 | | | 00:00:00 | 9.816 | 5.0 |
| 30.12 | 1.034 | 43.392 | 33.200 | 42.570 | 32.801 | 64.5 | 50.7 | | | 00:00:00 | 9.769 | 5.0 |
| 31.12 | 1.171 | 45.169 | 32.471 | 44.307 | 32.075 | 64.7 | 51.0 | | | 00:00:00 | 12.232 | 5.0 |
| 01.01 | 0.923 | 41.625 | 33.650 | 40.833 | 33.248 | 64.6 | 50.4 | | | 00:00:00 | 7.584 | 5.0 |
| 02.01 | 0.943 | 41.968 | 33.600 | 41.177 | 33.204 | 64.3 | 50.1 | | | 00:00:00 | 7.972 | 5.0 |
| 03.01 | 1.076 | 43.743 | 32.890 | 42.910 | 32.496 | 64.6 | 50.6 | | | 00:00:00 | 10.415 | 5.0 |
| 04.01 | 0.988 | 41.776 | 32.411 | 40.984 | 32.027 | 64.4 | 50.2 | | | 00:00:00 | 8.957 | 5.0 |
| 05.01 | 1.001 | 41.847 | 32.301 | 41.054 | 31.920 | 64.4 | 50.0 | | | 00:00:00 | 9.134 | 5.0 |
| 06.01 | 0.988 | 41.585 | 32.411 | 40.786 | 32.023 | 64.9 | 50.5 | | | 00:00:00 | 8.763 | 5.0 |
| 07.01 | 0.976 | 41.495 | 32.461 | 40.700 | 32.072 | 64.8 | 50.5 | | | 00:00:00 | 8.628 | 5.0 |
| 08.01 | 1.024 | 42.303 | 32.171 | 41.506 | 31.790 | 64.3 | 50.1 | | | 00:00:00 | 9.716 | 5.0 |
| 09.01 | 0.939 | 41.033 | 32.431 | 40.280 | 32.064 | 63.3 | 49.0 | | | 00:00:00 | 8.216 | 5.0 |
| 10.01 | 1.028 | 42.171 | 32.081 | 41.372 | 31.701 | 64.4 | 50.1 | | | 00:00:00 | 9.670 | 5.0 |
| : | 30.800 | 1306.514 | 1010.556 | 1281.781 | 998.475 | 64.4 | 50.4 | | | 00:56:48 | 283.306 | |

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| 11.12.2025 | 00:00:00 | 3826.50 | 112666.0 | 57221.04 |
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| 11.01.2026 | 00:00:00 | 3857.30 | 113947.8 | 58219.52 |

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| T | T | T | Tmin | Tmax | Tdt | T | T |
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|-------|--------|---------|---------|---------|---------|------|------|---|---|----------|--------|-----|
| | | V | V | | | | | P | P | | | |
| 11.01 | 2.104 | 110.298 | 106.998 | 108.155 | 105.944 | 65.1 | 45.6 | | | 00:00:00 | 2.211 | 5.0 |
| 12.01 | 2.097 | 109.893 | 106.589 | 107.751 | 105.533 | 65.2 | 45.7 | | | 00:00:00 | 2.218 | 5.0 |
| 13.01 | 2.144 | 109.371 | 106.056 | 107.187 | 104.992 | 66.1 | 46.0 | | | 00:00:00 | 2.195 | 5.0 |
| 14.01 | 2.187 | 108.677 | 105.330 | 106.452 | 104.256 | 67.0 | 46.4 | | | 00:00:00 | 2.195 | 5.0 |
| 15.01 | 2.110 | 107.504 | 103.877 | 101.722 | 99.441 | 66.3 | 45.6 | | | 00:00:00 | 2.281 | 5.0 |
| 16.01 | 2.295 | 109.463 | 104.958 | 107.175 | 103.888 | 67.8 | 46.4 | | | 00:00:00 | 3.288 | 5.0 |
| 17.01 | 2.305 | 109.297 | 104.710 | 106.979 | 103.643 | 68.2 | 46.6 | | | 00:00:00 | 3.336 | 5.0 |
| : | 15.242 | 764.503 | 738.518 | 745.420 | 727.698 | 66.5 | 46.1 | | | 00:00:00 | 17.723 | |

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| 11.01.2026 | 00:00:00 | 2463.17 | 198802.5 | 194018.9 |
| 18.01.2026 | 00:00:00 | 2478.42 | 199548.0 | 194746.5 |

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| T | T | T | Tmin | Tmax | Tdt | T | T |
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| 168:00:00 | 166:58:12 | 001:01:48 | 000:00:20 | 000:00:00 | 001:01:48 | 000:00:00 | 000:00:00 |

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|-------|-------|---------|---------|---------|---------|------|------|---|---|----------|--------|-----|
| | | V | V | | | | | P | P | | | |
| 11.01 | 1.061 | 42.743 | 31.881 | 41.939 | 31.505 | 64.2 | 50.1 | | | 00:00:00 | 10.435 | 5.0 |
| 12.01 | 1.029 | 42.333 | 32.031 | 41.543 | 31.658 | 63.9 | 49.7 | | | 00:00:00 | 9.885 | 5.0 |
| 13.01 | 0.976 | 41.353 | 32.141 | 40.573 | 31.763 | 64.3 | 50.0 | | | 00:00:00 | 8.810 | 5.0 |
| 14.01 | 0.959 | 41.087 | 32.071 | 40.318 | 31.696 | 64.0 | 49.8 | | | 00:00:00 | 8.621 | 5.0 |
| 15.01 | 0.953 | 40.950 | 32.091 | 40.178 | 31.713 | 64.3 | 50.0 | | | 00:00:00 | 8.465 | 5.0 |
| 16.01 | 0.994 | 41.534 | 31.871 | 40.753 | 31.496 | 64.2 | 50.0 | | | 00:00:00 | 9.257 | 5.0 |
| 17.01 | 1.082 | 42.704 | 31.471 | 41.900 | 31.100 | 64.2 | 50.0 | | | 00:00:00 | 10.799 | 5.0 |
| : | 7.054 | 292.703 | 223.554 | 287.204 | 220.932 | 64.1 | 49.9 | | | 00:00:00 | 66.272 | |

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| 11.01.2026 | 00:00:00 | 3857.30 | 113947.8 | 58219.52 |
| 18.01.2026 | 00:00:00 | 3864.36 | 114235.0 | 58440.45 |

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| T | T | T | Tmin | Tmax | Tdt | T | T |
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|-------|--------|----------|----------|----------|----------|------|------|---|---|----------|---------|-----|
| | | V | V | | | | | P | P | | | |
| 11.01 | 2.375 | 160.091 | 161.853 | 156.965 | 159.877 | 65.7 | 50.5 | | | 00:00:00 | -2.912 | 5.0 |
| 12.01 | 2.366 | 159.950 | 161.328 | 156.859 | 159.310 | 65.8 | 50.7 | | | 00:00:00 | -2.451 | 5.0 |
| 13.01 | 2.431 | 159.382 | 160.319 | 156.278 | 158.222 | 66.7 | 51.1 | | | 00:00:00 | -1.944 | 5.0 |
| 14.01 | 2.493 | 159.052 | 159.632 | 155.936 | 157.447 | 67.6 | 51.6 | | | 00:00:00 | -1.511 | 5.0 |
| 15.01 | 2.417 | 156.988 | 157.075 | 148.666 | 149.514 | 67.0 | 50.7 | | | 00:00:00 | -0.848 | 5.0 |
| 16.01 | 2.601 | 159.119 | 158.908 | 155.959 | 156.687 | 68.4 | 51.7 | | | 00:00:00 | -0.728 | 5.0 |
| 17.01 | 2.614 | 159.454 | 159.140 | 156.191 | 156.966 | 68.7 | 52.0 | | | 00:00:00 | -0.775 | 5.0 |
| : | 17.298 | 1114.036 | 1118.255 | 1086.853 | 1098.023 | 67.1 | 51.2 | | | 00:00:00 | -11.170 | |

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| 11.01.2026 | 00:00:00 | 2705.13 | 271720.8 | 276442.7 |
| 18.01.2026 | 00:00:00 | 2722.43 | 272807.7 | 277540.7 |

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| T | T | T | Tmin | Tmax | Tdt | T | T |
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| 168:00:00 | 166:54:24 | 001:05:36 | 000:00:00 | 000:00:00 | 001:05:36 | 000:00:00 | 000:00:00 |

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| | | V | V | | | | | P | P | | | |
| 11.12 | 2.111 | 182.128 | 184.266 | 179.133 | 181.958 | 61.4 | 49.6 | | | 00:00:00 | -2.825 | 5.0 |
| 12.12 | 2.072 | 181.677 | 184.033 | 178.689 | 181.762 | 61.1 | 49.5 | | | 00:00:00 | -3.073 | 5.0 |
| 13.12 | 2.053 | 179.666 | 181.897 | 176.832 | 179.723 | 60.0 | 48.4 | | | 00:14:32 | -2.891 | 5.0 |
| 14.12 | 2.129 | 181.955 | 184.188 | 179.054 | 181.971 | 60.4 | 48.5 | | | 00:00:00 | -2.917 | 5.0 |
| 15.12 | 2.163 | 181.737 | 184.178 | 178.758 | 181.989 | 60.8 | 48.7 | | | 00:00:00 | -3.231 | 5.0 |
| 16.12 | 2.095 | 181.582 | 183.937 | 178.620 | 181.885 | 59.8 | 48.0 | | | 00:00:00 | -3.265 | 5.0 |
| 17.12 | 2.082 | 181.043 | 183.012 | 178.096 | 180.899 | 60.1 | 48.4 | | | 00:00:00 | -2.803 | 5.0 |
| 18.12 | 2.055 | 175.958 | 178.881 | 170.782 | 174.419 | 60.3 | 48.2 | | | 00:00:00 | -3.636 | 5.0 |
| 19.12 | 2.041 | 178.135 | 181.329 | 175.211 | 179.319 | 59.8 | 48.1 | | | 00:00:00 | -4.109 | 5.0 |
| 20.12 | 2.051 | 178.002 | 181.222 | 175.092 | 179.206 | 59.8 | 48.0 | | | 00:00:00 | -4.114 | 5.0 |
| 21.12 | 2.041 | 177.772 | 180.900 | 174.881 | 178.874 | 59.7 | 48.0 | | | 00:00:00 | -3.993 | 5.0 |
| 22.12 | 1.448 | 123.968 | 126.295 | 118.854 | 121.402 | 59.3 | 47.1 | | | 00:00:00 | -2.547 | 5.0 |
| 23.12 | 2.189 | 192.421 | 195.161 | 189.305 | 192.868 | 60.2 | 48.6 | | | 00:00:00 | -3.562 | 5.0 |
| 24.12 | 2.360 | 188.806 | 192.009 | 185.480 | 189.720 | 62.4 | 49.6 | | | 00:00:00 | -4.240 | 5.0 |
| 25.12 | 1.686 | 130.384 | 132.721 | 127.989 | 130.971 | 60.9 | 47.7 | | | 00:00:00 | -2.982 | 5.0 |
| 26.12 | 1.972 | 171.404 | 173.171 | 168.674 | 171.372 | 58.5 | 46.8 | | | 00:42:20 | -2.698 | 5.0 |
| 27.12 | 2.029 | 174.432 | 176.393 | 171.677 | 174.508 | 58.7 | 46.9 | | | 00:00:00 | -2.830 | 5.0 |
| 28.12 | 1.971 | 170.967 | 172.996 | 168.392 | 171.081 | 58.3 | 46.6 | | | 00:00:00 | -2.689 | 5.0 |
| 29.12 | 1.956 | 170.344 | 172.309 | 167.786 | 170.440 | 58.0 | 46.4 | | | 00:00:00 | -2.654 | 5.0 |
| 30.12 | 1.954 | 172.307 | 174.277 | 169.746 | 172.413 | 57.6 | 46.1 | | | 00:00:00 | -2.667 | 5.0 |
| 31.12 | 2.016 | 169.158 | 171.483 | 166.570 | 169.578 | 58.8 | 46.7 | | | 00:00:00 | -3.008 | 5.0 |
| 01.01 | 2.182 | 167.536 | 170.133 | 164.768 | 168.194 | 60.9 | 47.7 | | | 00:00:00 | -3.426 | 5.0 |
| 02.01 | 2.176 | 166.154 | 168.585 | 163.450 | 166.680 | 60.6 | 47.3 | | | 00:00:00 | -3.230 | 5.0 |
| 03.01 | 2.103 | 165.639 | 167.862 | 163.021 | 166.021 | 59.6 | 46.7 | | | 00:00:00 | -3.000 | 5.0 |
| 04.01 | 2.022 | 165.155 | 167.423 | 162.596 | 165.633 | 58.7 | 46.3 | | | 00:00:00 | -3.037 | 5.0 |
| 05.01 | 2.031 | 164.409 | 166.669 | 161.806 | 164.915 | 59.0 | 46.4 | | | 00:00:00 | -3.110 | 5.0 |
| 06.01 | 2.110 | 163.614 | 165.741 | 160.903 | 163.958 | 60.2 | 47.1 | | | 00:00:00 | -3.054 | 5.0 |
| 07.01 | 2.237 | 162.635 | 165.051 | 159.759 | 163.207 | 62.2 | 48.2 | | | 00:00:00 | -3.449 | 5.0 |
| 08.01 | 2.387 | 161.798 | 164.413 | 158.647 | 162.442 | 65.4 | 50.3 | | | 00:00:00 | -3.795 | 5.0 |
| 09.01 | 2.411 | 160.242 | 162.705 | 157.108 | 160.768 | 65.5 | 50.1 | | | 00:00:00 | -3.660 | 5.0 |
| 10.01 | 2.377 | 160.105 | 162.280 | 156.972 | 160.322 | 65.6 | 50.4 | | | 00:00:00 | -3.351 | 5.0 |
| : | 64.510 | 5281.134 | 5355.522 | 5188.651 | 5288.496 | 60.4 | 48.0 | | | 00:56:52 | -99.844 | |

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| 11.12.2025 | 00:00:00 | 2640.62 | 266532.1 | 271154.2 |
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| 11.01.2026 | 00:00:00 | 2705.13 | 271720.8 | 276442.7 |

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| | | V | V | | | | | P | P | | | |
| 11.01 | 0.721 | 21.618 | 11.762 | 21.289 | 11.679 | 57.2 | 38.5 | | | 00:00:00 | 9.610 | 5.0 |
| 12.01 | 0.601 | 19.323 | 11.807 | 19.032 | 11.725 | 57.0 | 38.2 | | | 00:00:00 | 7.307 | 5.0 |
| 13.01 | 0.615 | 19.496 | 11.760 | 19.199 | 11.678 | 57.3 | 38.4 | | | 00:00:00 | 7.521 | 5.0 |
| 14.01 | 0.644 | 20.006 | 11.605 | 19.703 | 11.524 | 57.1 | 38.2 | | | 00:00:00 | 8.179 | 5.0 |
| 15.01 | 0.616 | 19.330 | 11.617 | 19.035 | 11.537 | 57.4 | 38.1 | | | 00:00:00 | 7.498 | 5.0 |
| 16.01 | 0.608 | 19.191 | 11.563 | 18.899 | 11.483 | 57.2 | 38.0 | | | 00:00:00 | 7.416 | 5.0 |
| 17.01 | 0.639 | 19.709 | 11.496 | 19.409 | 11.417 | 57.3 | 38.0 | | | 00:00:00 | 7.993 | 5.0 |
| : | 4.444 | 138.673 | 81.610 | 136.566 | 81.043 | 57.2 | 38.2 | | | 00:00:00 | 55.523 | |

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| 11.01.2026 | 00:00:00 | 1340.102 | 66926.12 | 58680.47 |
| 18.01.2026 | 00:00:00 | 1344.546 | 67062.67 | 58761.51 |

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| T | T | T | Tmin | Tmax | Tdt | T | T |
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| | | V | V | | | | | P | P | | | |
| 11.12 | 0.594 | 19.480 | 12.221 | 19.180 | 12.131 | 57.6 | 39.2 | | | 00:00:00 | 7.049 | 5.0 |
| 12.12 | 0.622 | 20.077 | 12.197 | 19.769 | 12.107 | 57.5 | 39.3 | | | 00:00:00 | 7.662 | 5.0 |
| 13.12 | 0.702 | 21.334 | 11.976 | 21.006 | 11.890 | 57.6 | 38.9 | | | 00:14:32 | 9.116 | 5.0 |
| 14.12 | 0.648 | 20.503 | 12.131 | 20.193 | 12.045 | 57.1 | 38.5 | | | 00:00:00 | 8.148 | 5.0 |
| 15.12 | 0.659 | 20.782 | 12.103 | 20.470 | 12.017 | 56.9 | 38.5 | | | 00:00:00 | 8.453 | 5.0 |
| 16.12 | 0.657 | 20.707 | 12.078 | 20.397 | 11.993 | 56.8 | 38.4 | | | 00:00:00 | 8.404 | 5.0 |
| 17.12 | 0.637 | 20.450 | 12.199 | 20.144 | 12.112 | 56.8 | 38.6 | | | 00:00:00 | 8.032 | 5.0 |
| 18.12 | 0.740 | 22.316 | 12.106 | 21.979 | 12.020 | 57.1 | 38.7 | | | 00:00:00 | 9.959 | 5.0 |
| 19.12 | 0.591 | 19.251 | 12.227 | 18.952 | 12.138 | 58.0 | 39.1 | | | 00:00:00 | 6.814 | 5.0 |
| 20.12 | 0.641 | 20.139 | 12.151 | 19.825 | 12.063 | 58.0 | 39.1 | | | 00:00:00 | 7.762 | 5.0 |
| 21.12 | 0.642 | 20.065 | 12.086 | 19.749 | 11.998 | 58.3 | 39.2 | | | 00:00:00 | 7.752 | 5.0 |
| 22.12 | 0.650 | 20.291 | 12.059 | 19.975 | 11.971 | 58.0 | 39.1 | | | 00:00:00 | 8.004 | 5.0 |
| 23.12 | 0.636 | 19.901 | 12.014 | 19.593 | 11.930 | 57.8 | 38.4 | | | 00:00:00 | 7.663 | 5.0 |
| 24.12 | 0.573 | 18.836 | 12.031 | 18.552 | 11.949 | 57.0 | 37.8 | | | 00:00:00 | 6.602 | 5.0 |
| 25.12 | 0.637 | 20.279 | 12.198 | 19.975 | 12.115 | 56.8 | 37.9 | | | 00:00:00 | 7.860 | 5.0 |
| 26.12 | 0.641 | 19.963 | 11.775 | 19.660 | 11.693 | 57.3 | 38.1 | | | 00:42:20 | 7.966 | 5.0 |
| 27.12 | 0.666 | 20.437 | 12.064 | 20.117 | 11.978 | 58.2 | 38.7 | | | 00:00:00 | 8.139 | 5.0 |
| 28.12 | 0.664 | 20.560 | 12.007 | 20.243 | 11.921 | 57.6 | 38.7 | | | 00:00:00 | 8.322 | 5.0 |
| 29.12 | 0.608 | 19.575 | 12.095 | 19.275 | 12.009 | 57.4 | 38.6 | | | 00:00:00 | 7.265 | 5.0 |
| 30.12 | 0.645 | 20.262 | 12.031 | 19.952 | 11.946 | 57.5 | 38.6 | | | 00:00:00 | 8.006 | 5.0 |
| 31.12 | 0.719 | 21.528 | 11.876 | 21.197 | 11.791 | 57.7 | 38.7 | | | 00:00:00 | 9.405 | 5.0 |
| 01.01 | 0.567 | 18.781 | 11.980 | 18.493 | 11.893 | 57.6 | 39.0 | | | 00:00:00 | 6.600 | 5.0 |
| 02.01 | 0.677 | 20.841 | 11.897 | 20.524 | 11.813 | 57.3 | 38.5 | | | 00:00:00 | 8.711 | 5.0 |
| 03.01 | 0.607 | 19.326 | 11.998 | 19.030 | 11.916 | 57.6 | 38.1 | | | 00:00:00 | 7.114 | 5.0 |
| 04.01 | 0.581 | 18.923 | 12.021 | 18.633 | 11.937 | 57.4 | 38.2 | | | 00:00:00 | 6.696 | 5.0 |
| 05.01 | 0.595 | 19.183 | 11.994 | 18.890 | 11.911 | 57.4 | 38.1 | | | 00:00:00 | 6.979 | 5.0 |
| 06.01 | 0.667 | 20.333 | 11.908 | 20.016 | 11.825 | 58.0 | 38.4 | | | 00:00:00 | 8.191 | 5.0 |
| 07.01 | 0.595 | 19.003 | 11.991 | 18.707 | 11.908 | 57.9 | 38.2 | | | 00:00:00 | 6.799 | 5.0 |
| 08.01 | 0.595 | 19.207 | 11.956 | 18.915 | 11.873 | 57.3 | 38.2 | | | 00:00:00 | 7.042 | 5.0 |
| 09.01 | 0.599 | 19.400 | 11.893 | 19.112 | 11.813 | 56.5 | 37.7 | | | 00:00:00 | 7.299 | 5.0 |
| 10.01 | 0.698 | 21.032 | 11.821 | 20.709 | 11.738 | 57.6 | 38.3 | | | 00:00:00 | 8.971 | 5.0 |
| : | 19.750 | 622.763 | 373.087 | 613.229 | 370.444 | 57.5 | 38.5 | | | 00:56:52 | 242.785 | |

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| 11.12.2025 | 00:00:00 | 1320.352 | 66312.88 | 58310.03 |
|------------|----------|----------|----------|----------|
| 11.01.2026 | 00:00:00 | 1340.102 | 66926.12 | 58680.47 |

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| T | T | T | Tmin | Tmax | Tdt | T | T |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 744:00:00 | 743:02:44 | 000:57:16 | 000:00:24 | 000:00:00 | 000:00:00 | 000:00:00 | 000:56:52 |

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