

НОМЕР АБОНЕНТА:

000 МК-Средствамобильная

Подстанция Система 1

ТЭН-104 Зав.№ 1551476

АДРЕС УСТАНОВКИ:

Радиусский ул 418 мкр Южный

G1 ДУ50 0.150 - 60.00 м3/ч

G2 ДУ50 0.150 - 60.00 м3/ч

Q = MI(hn - h0)

ВЕДОМОСТЬ УЧЕТА ПАРАМЕТРОВ ТЕПЛОПОТРЕБЛЕНИЯ

за период с 13/12/23 по 12/01/24

| ДАТА | Q | M1 | M2 | M1-M2 | Tn | To | Pn | Po | Tнар,ч |
|----------|--------|---------|--------|--------|--------|-------|------|------|--------|
| дд/мм/гг | Гкал | т | т | т | С | С | МПа | МПа | час |
| 13/12/23 | 8.992 | 260.25 | 253.16 | +7.10 | 93.97 | 59.55 | 0.91 | 0.51 | 24.00 |
| 14/12/23 | 9.087 | 255.22 | 248.95 | +6.27 | 95.24 | 59.78 | 0.91 | 0.51 | 24.00 |
| 15/12/23 | 8.682 | 231.32 | 224.81 | +6.51 | 95.40 | 58.01 | 0.91 | 0.51 | 24.00 |
| 16/12/23 | 8.409 | 223.41 | 216.46 | +6.95 | 93.96 | 56.46 | 0.91 | 0.51 | 24.00 |
| 17/12/23 | 7.147 | 185.05 | 178.22 | +6.84 | 89.80 | 51.30 | 0.91 | 0.51 | 24.00 |
| 18/12/23 | 6.312 | 158.32 | 151.48 | +6.84 | 89.03 | 49.28 | 0.91 | 0.51 | 24.00 |
| 19/12/23 | 5.799 | 141.31 | 134.67 | +6.64 | 89.23 | 48.31 | 0.91 | 0.51 | 24.00 |
| ИТОГО: | 54.43 | 1454.9 | 1407.8 | +47.1 | 92.89 | 55.64 | 0.91 | 0.51 | 168.0 |
| 20/12/23 | 5.383 | 149.20 | 142.74 | +6.46 | 84.46 | 48.49 | 0.91 | 0.51 | 24.00 |
| 21/12/23 | 5.835 | 169.00 | 162.21 | +6.79 | 84.36 | 49.94 | 0.91 | 0.51 | 24.00 |
| 22/12/23 | 6.000 | 161.60 | 154.79 | +6.81 | 87.17 | 50.16 | 0.91 | 0.51 | 24.00 |
| 23/12/23 | 6.075 | 162.92 | 156.32 | +6.61 | 86.05 | 48.87 | 0.91 | 0.51 | 24.00 |
| 24/12/23 | 6.212 | 166.12 | 159.53 | +6.59 | 86.13 | 48.84 | 0.91 | 0.51 | 24.00 |
| 25/12/23 | 6.354 | 177.93 | 171.21 | +6.72 | 86.61 | 51.02 | 0.91 | 0.51 | 24.00 |
| 26/12/23 | 6.400 | 178.31 | 171.57 | +6.74 | 86.61 | 50.83 | 0.91 | 0.51 | 24.00 |
| ИТОГО: | 42.26 | 1165.1 | 1118.3 | +46.7 | 85.94 | 49.78 | 0.91 | 0.51 | 168.0 |
| 27/12/23 | 6.567 | 187.16 | 180.50 | +6.66 | 86.93 | 51.95 | 0.91 | 0.51 | 24.00 |
| 28/12/23 | 6.833 | 194.26 | 187.46 | +6.81 | 87.11 | 52.05 | 0.91 | 0.51 | 24.00 |
| 29/12/23 | 6.578 | 183.39 | 176.73 | +6.66 | 87.45 | 51.70 | 0.91 | 0.51 | 24.00 |
| 30/12/23 | 5.747 | 156.85 | 150.21 | +6.64 | 85.12 | 48.59 | 0.91 | 0.51 | 24.00 |
| 31/12/23 | 6.710 | 178.97 | 172.28 | +6.69 | 87.70 | 50.32 | 0.91 | 0.51 | 24.00 |
| 01/01/24 | 8.854 | 254.77 | 248.59 | +6.18 | 95.13 | 60.52 | 0.91 | 0.51 | 24.00 |
| 02/01/24 | 11.005 | 381.82 | 376.60 | +5.22 | 97.93 | 69.25 | 0.91 | 0.51 | 24.00 |
| ИТОГО: | 52.29 | 1537.2 | 1492.4 | +44.9 | 91.01 | 57.20 | 0.91 | 0.51 | 168.0 |
| 03/01/24 | 12.332 | 440.93 | 430.34 | +10.59 | 101.39 | 73.58 | 0.91 | 0.51 | 24.00 |
| 04/01/24 | 12.375 | 425.39 | 414.27 | +11.12 | 101.46 | 72.53 | 0.91 | 0.51 | 24.00 |
| 05/01/24 | 12.295 | 409.04 | 398.52 | +10.53 | 101.61 | 71.71 | 0.91 | 0.51 | 24.00 |
| 06/01/24 | 11.489 | 351.50 | 342.00 | +9.50 | 101.07 | 68.54 | 0.91 | 0.51 | 24.00 |
| 07/01/24 | 12.086 | 395.54 | 385.93 | +9.61 | 101.28 | 70.88 | 0.91 | 0.51 | 24.00 |
| 08/01/24 | 11.996 | 386.41 | 376.83 | +9.58 | 100.60 | 69.71 | 0.91 | 0.51 | 24.00 |
| 09/01/24 | 9.229 | 272.44 | 264.60 | +7.83 | 93.76 | 60.02 | 0.91 | 0.51 | 24.00 |
| ИТОГО: | 81.80 | 2681.2 | 2612.5 | +68.8 | 100.49 | 70.14 | 0.91 | 0.51 | 168.0 |
| 10/01/24 | 8.347 | 264.64 | 258.04 | +6.61 | 88.53 | 57.11 | 0.91 | 0.51 | 24.00 |
| 11/01/24 | 8.136 | 225.38 | 219.28 | +6.10 | 92.39 | 56.42 | 0.91 | 0.51 | 24.00 |
| 12/01/24 | 10.140 | 311.71 | 303.18 | +8.53 | 95.45 | 63.06 | 0.91 | 0.51 | 24.00 |
| ИТОГО: | 26.62 | 801.7 | 780.5 | +21.2 | 92.31 | 59.23 | 0.91 | 0.51 | 72.0 |
| ИТОГО: | 257.41 | 7640.2 | 7411.5 | +228.7 | 94.06 | 60.56 | 0.91 | 0.51 | 744.0 |
| | | +228.69 | | -0 | 33.50 | | | | |

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

Количество тепла, Гкал Q = Qt/c + Qmin + Qmax + Qсш. + Qt/в + Qсан.ут.
 = 257.41 + + + + +

| Показания интеграторов на | 12/12/23 24:00 | 12/01/24 24:00 | Разность | | 23/01/24 12:48 |
|---|----------------|----------------|----------|--|----------------|
| Расход тепла Q, Гкал | 8223.388 | 8480.796 | 257.408 | | 8577.765 |
| Расход теплоносителя M1, т | 267326.47 | 274966.63 | 7640.16 | | 277769.01 |
| Расход теплоносителя M2, т | 267513.40 | 274924.87 | 7411.47 | | 277661.64 |
| Время наработки Tнар, ч | 46291.08 | 47035.08 | 744.00 | | 47287.99 |
| Время наработки Tнар = Tmax + Tmin + Tdt + Tгн, ч | | | 0.00 | | |

вЗА.11

Подпись потребителя

Подпись поставщика

НОМЕР АБОНЕНТА:
АДРЕС УСТАНОВКИ:

ООО УК - Стройавтоматика
Адрес: Рабочий район д. 18

ТЭП-104 Зап. № 1551476

61 ДУ50 0.150 - 60.00 м3/ч
62 ДУ50 0.150 - 60.00 м3/ч
Q = MI(M1 - M2)

ВЕДОМОСТЬ УЧЕТА ПАРАМЕТРОВ ТЕПЛОПОТРЕБЛЕНИЯ
за период с 21/12/23 по 20/01/24

V_{max} = 508
опу

| Дата дд/мм/гг | Q Гкал | M1 т | M2 т | M1-M2 т | Tn С | To С | Fn МПа | Рo МПа | Tнар,ч час |
|------------------|-----------|---------|---------|------------|---------|---------|-----------|-----------|---------------|
| 21/12/23 | 5.835 | 169.00 | 162.21 | +6.79 | 84.36 | 49.94 | 0.91 | 0.51 | 24.00 |
| 22/12/23 | 6.000 | 161.60 | 154.79 | +6.81 | 87.17 | 50.16 | 0.91 | 0.51 | 24.00 |
| 23/12/23 | 6.075 | 162.92 | 156.32 | +6.61 | 86.05 | 48.87 | 0.91 | 0.51 | 24.00 |
| 24/12/23 | 6.212 | 166.12 | 159.53 | +6.58 | 86.13 | 48.84 | 0.91 | 0.51 | 24.00 |
| 25/12/23 | 6.354 | 177.93 | 171.21 | +6.72 | 86.61 | 51.02 | 0.91 | 0.51 | 24.00 |
| 26/12/23 | 6.480 | 178.31 | 171.57 | +6.74 | 86.61 | 50.83 | 0.91 | 0.51 | 24.00 |
| 27/12/23 | 6.567 | 187.16 | 180.50 | +6.66 | 86.93 | 51.95 | 0.91 | 0.51 | 24.00 |
| Итого: | 43.44 | 1203.0 | 1156.1 | +6.9 | 86.28 | 50.28 | 0.91 | 0.51 | 168.0 |
| 28/12/23 | 6.835 | 194.26 | 187.46 | +6.81 | 87.11 | 52.05 | 0.91 | 0.51 | 24.00 |
| 29/12/23 | 6.570 | 185.39 | 176.73 | +6.66 | 87.45 | 51.70 | 0.91 | 0.51 | 24.00 |
| 30/12/23 | 6.747 | 186.85 | 180.21 | +6.64 | 85.12 | 48.59 | 0.91 | 0.51 | 24.00 |
| 31/12/23 | 6.710 | 178.97 | 172.28 | +6.69 | 87.70 | 50.32 | 0.91 | 0.51 | 24.00 |
| 01/01/24 | 8.554 | 254.77 | 248.39 | +6.18 | 95.13 | 60.52 | 0.91 | 0.51 | 24.00 |
| 02/01/24 | 11.005 | 381.82 | 376.60 | +5.22 | 97.93 | 69.25 | 0.91 | 0.51 | 24.00 |
| 03/01/24 | 12.332 | 440.93 | 430.34 | +10.59 | 101.39 | 73.58 | 0.91 | 0.51 | 24.00 |
| Итого: | 50.06 | 1791.0 | 1742.2 | +6.8 | 93.99 | 61.79 | 0.91 | 0.51 | 168.0 |
| 04/01/24 | 12.375 | 425.39 | 414.27 | +11.12 | 101.46 | 72.53 | 0.91 | 0.51 | 24.00 |
| 05/01/24 | 12.295 | 409.04 | 398.52 | +10.53 | 101.61 | 71.71 | 0.91 | 0.51 | 24.00 |
| 06/01/24 | 11.489 | 351.50 | 342.00 | +9.50 | 101.07 | 68.54 | 0.91 | 0.51 | 24.00 |
| 07/01/24 | 12.086 | 395.54 | 385.93 | +9.61 | 101.28 | 70.89 | 0.91 | 0.51 | 24.00 |
| 08/01/24 | 11.996 | 386.41 | 376.83 | +9.58 | 100.60 | 69.71 | 0.91 | 0.51 | 24.00 |
| 09/01/24 | 9.229 | 272.44 | 264.20 | +7.83 | 93.76 | 60.62 | 0.91 | 0.51 | 24.00 |
| 10/01/24 | 8.347 | 264.64 | 258.04 | +6.61 | 88.53 | 57.11 | 0.91 | 0.51 | 24.00 |
| Итого: | 77.62 | 2505.0 | 2440.2 | +6.8 | 99.07 | 68.13 | 0.91 | 0.51 | 168.0 |
| 11/01/24 | 8.136 | 225.38 | 219.28 | +6.10 | 92.39 | 56.42 | 0.91 | 0.51 | 24.00 |
| 12/01/24 | 10.140 | 311.71 | 303.19 | +8.53 | 95.45 | 63.06 | 0.91 | 0.51 | 24.00 |
| 13/01/24 | 11.762 | 370.83 | 361.82 | +9.01 | 101.49 | 69.93 | 0.91 | 0.51 | 24.00 |
| 14/01/24 | 11.184 | 356.80 | 347.56 | +9.24 | 97.89 | 66.69 | 0.91 | 0.51 | 24.00 |
| 15/01/24 | 8.283 | 246.39 | 239.75 | +6.64 | 90.31 | 56.81 | 0.91 | 0.51 | 24.00 |
| 16/01/24 | 7.320 | 195.05 | 189.55 | +5.49 | 90.00 | 52.99 | 0.91 | 0.51 | 24.00 |
| 17/01/24 | 8.920 | 238.85 | 233.29 | +5.56 | 95.55 | 58.34 | 0.91 | 0.51 | 24.00 |
| Итого: | 65.75 | 1945.0 | 1894.4 | +5.6 | 95.51 | 61.85 | 0.91 | 0.51 | 168.0 |
| 18/01/24 | 9.306 | 275.33 | 270.23 | +5.10 | 94.32 | 60.67 | 0.91 | 0.51 | 24.00 |
| 19/01/24 | 8.519 | 226.16 | 220.66 | +5.50 | 94.04 | 56.50 | 0.91 | 0.51 | 24.00 |
| 20/01/24 | 8.806 | 255.06 | 249.70 | +5.36 | 93.61 | 59.21 | 0.91 | 0.51 | 24.00 |
| Итого: | 26.63 | 756.5 | 740.6 | +5.0 | 95.00 | 58.74 | 0.91 | 0.51 | 72.0 |
| Итого: | 271.70 | 8200.5 | 7973.5 | +227.0 | 94.77 | 61.82 | 0.91 | 0.51 | 744.0 |
| | | +226.99 | | -0 | 32.95 | | | | |

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

Количество тепла, Гкал Q = Qт/с + Qmin + Qmax + Qсм. + Qт/в + Qсан.ут.
= 271.70 + + + + +

| Показания интеграторов на | 20/12/23 24:00 | 20/01/24 24:00 | Разность | 22/01/24 09:06 |
|--|----------------|----------------|----------|----------------|
| Расход тепла Q, Гкал | 8203.198 | 8554.896 | 271.698 | 8568.679 |
| Расход теплоносителя M1, т | 268930.57 | 277131.09 | 8200.53 | 277503.83 |
| Расход теплоносителя M2, т | 269063.09 | 277037.43 | 7973.53 | 277402.91 |
| Время парабиты Tнар, ч | 46483.09 | 47227.09 | 744.00 | 47260.19 |
| Время парабиты Tнар = Tmax + Tmin + Tdt + Ttn, ч | | | 0.00 | |

в.с.А.11

Подпись потребителя

Подпись поставщика