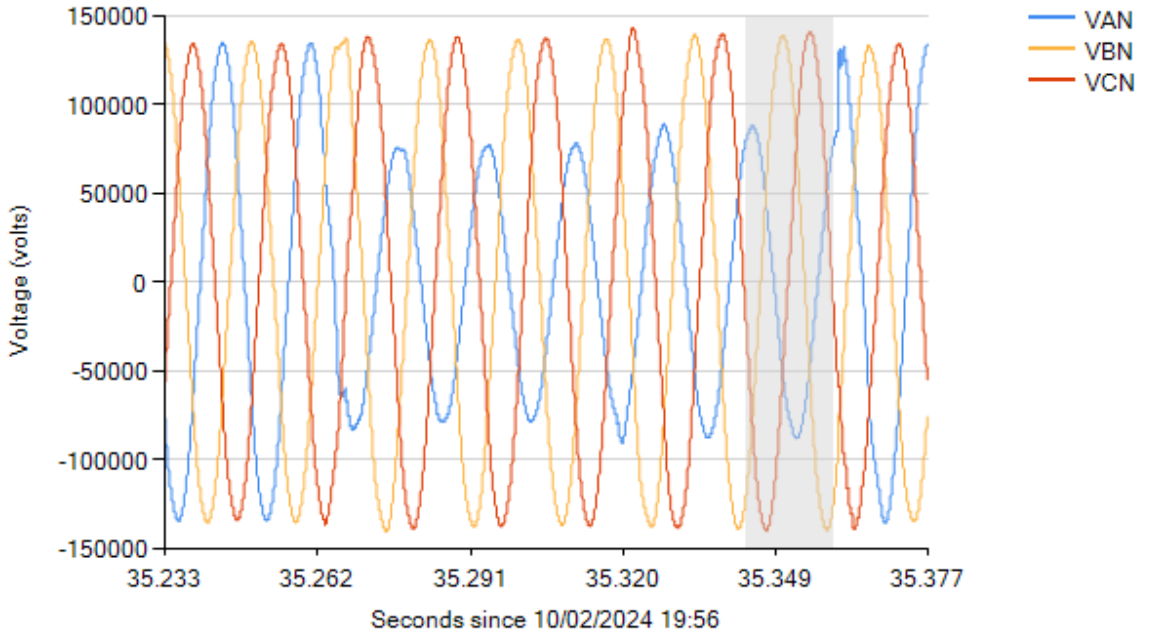
**Fault 1 - 2023-05-23 19:56:35.2664062**

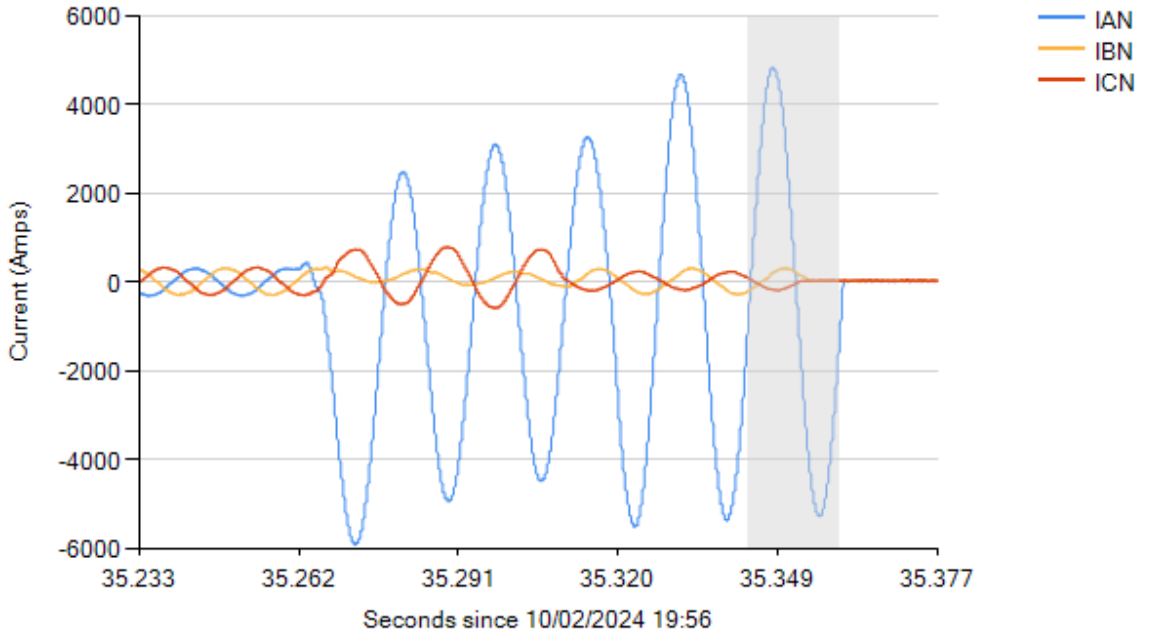
| | |
|---|---|
| Station: | Substation 1 (Substation1Key) |
| DFR: | Meter 1 (APP) |
| File: | 1170.dat |
| Breaker: | Breaker 1 |
| Fault Type: | AN |
| Inception Time: | 19:56:35.2664062 |
| Fault Duration: | 94.010 msec (5.64 cycles) |
| Fault Current: | 3575.4 Amps (RMS) |
| Distance Method: | Reactance |
| Single-ended Distance: | 13.283 miles |

| | **Probability of Fault Cause** |
|---|---|
| DFR: | Meter 1 (APP) |
| Tree: | Low (Rf = -0.84) |
| Lightning: | No lightning found |
| Insulation Flashover: | Low (62.25° from peak) |
| Arrester Failure: | Low (0.17) |
| Conductor Slap / Debris Midspan: | No (applies only to multi-phase faults) |
| Broken Conductor: | Low (0.99) |

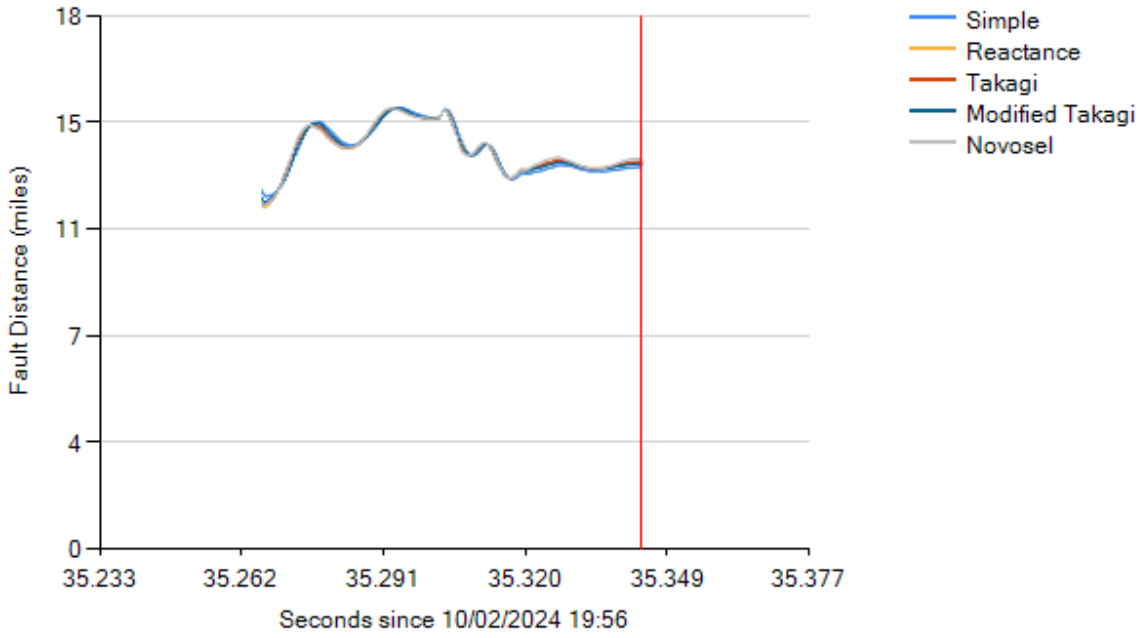
**Meter 1 - Voltage**




**Meter 1 - Current**



**Meter 1 - Fault Distance**

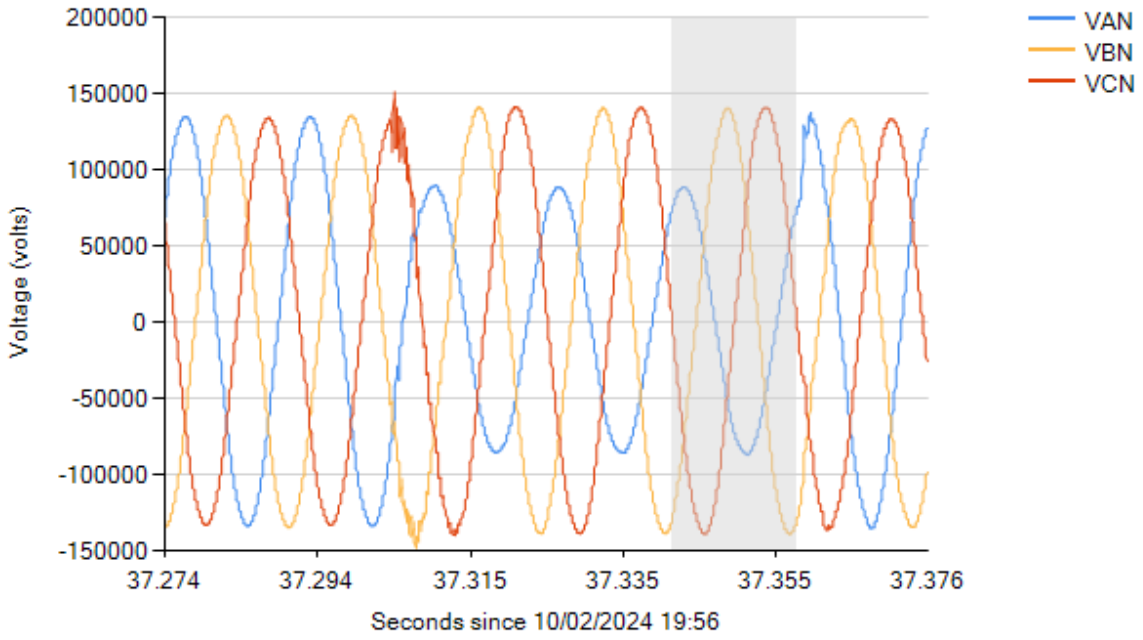



**Fault 2 - 2023-05-23 19:56:37.3067708**

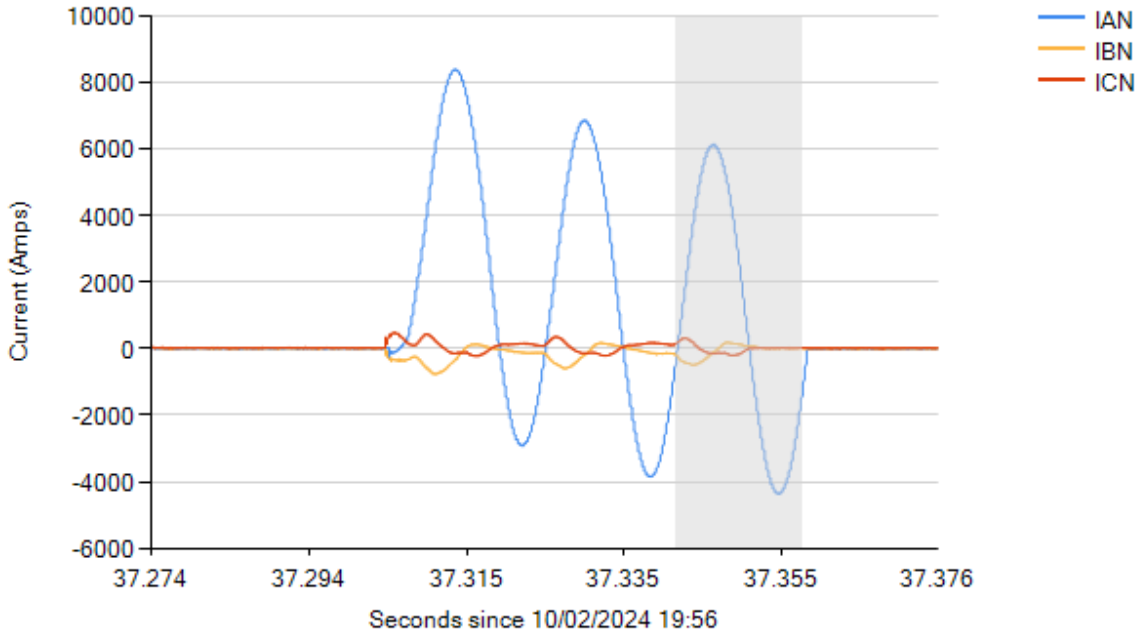
| | |
|---|---|
| Station: | Substation 1 (Substation1Key) |
| DFR: | Meter 1 (APP) |
| File: | 1170.dat |
| Breaker: | Breaker 1 |
| Fault Type: | AN |
| Inception Time: | 19:56:37.3067708 |
| Fault Duration: | 52.148 msec (3.13 cycles) |
| Fault Current: | 3826.0 Amps (RMS) |
| Distance Method: | Reactance |
| Single-ended Distance: | 12.392 miles |
| Click for fault report: | 11895424 |

| | Probability of Fault Cause |
|---|---|
| DFR: | Meter 1 (APP) |
| Tree: | Low (Rf = -0.59) |
| Lightning: | No lightning found |
| Insulation Flashover: | Low (66.44° from peak) |
| Arrester Failure: | Undetermined |
| Conductor Slap / Debris Midspan: | No (applies only to multi-phase faults) |
| Broken Conductor: | Low (0.66) |

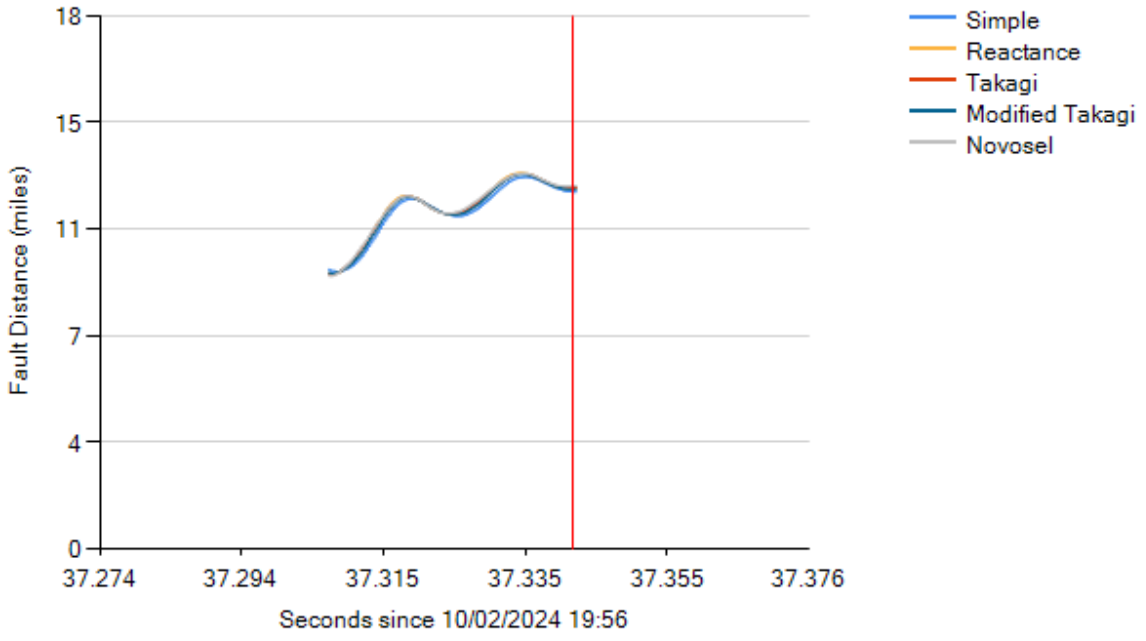
**Meter 1 - Voltage**



**Meter 1 - Current**




**Meter 1 - Fault Distance**



| Line Parameters: | Value: | Per Mile: |
|---|---|---|
| **Length (Mi)** | 18.35 | 1.0 |
| **Pos-Seq Imp**<br>**Z1 (Ohm)**<br>**(LLL,LLLG,LL,LLG)** | 12.5428∠79.6422°<br>2.2551+j12.3384 | 0.6835∠79.6422°<br>0.1229+j0.6835 |
| **Zero-Seq Imp**<br>**Z0 (Ohm)** | 47.4936∠72.6627°<br>14.1529+j45.3358 | 2.5882∠72.6627°<br>0.7713+j2.4706 |
| **Loop Imp**<br>**ZS (Ohm)**<br>**(LG)** | 24.1525∠75.0738°<br>6.2211+j23.3375 | 1.3162∠75.0738°<br>0.339+j1.2718 |