

# Transformer

|    | TXFO ID | Bus From | Bus To | DBase ID | Type           |
|----|---------|----------|--------|----------|----------------|
| 1  |         |          |        |          |                |
| 2  |         |          |        |          |                |
| 3  | T10     | B2       | B30    | T10      | Fixed-Tap Xmer |
| 4  | T01     | B12      | B11    | T01      | Fixed-Tap Xmer |
| 5  | T11     | B29      | B38    | T11      | Fixed-Tap Xmer |
| 6  | T02     | B12      | B13    | T02      | Fixed-Tap Xmer |
| 7  | T12     | B19      | B20    | T12      | Fixed-Tap Xmer |
| 8  | T03     | B6       | B31    | T03      | Fixed-Tap Xmer |
| 9  | T04     | B10      | B32    | T04      | Fixed-Tap Xmer |
| 10 | T05     | B19      | B33    | T05      | Fixed-Tap Xmer |
| 11 | T06     | B20      | B34    | T06      | Fixed-Tap Xmer |
| 12 | T07     | B22      | B35    | T07      | Fixed-Tap Xmer |
| 13 | T08     | B23      | B36    | T08      | Fixed-Tap Xmer |
| 14 | T09     | B25      | B37    | T09      | Fixed-Tap Xmer |

# Transformer

|    | Rated S<br>[MVA] | kV Nominal<br>Primary | kV Nominal<br>Secondary | P<br>[MW] | Q<br>[MVAR] | S<br>[MVA] | P. Factor<br>[%] | I<br>[pu] |
|----|------------------|-----------------------|-------------------------|-----------|-------------|------------|------------------|-----------|
| 1  |                  |                       |                         |           |             |            |                  |           |
| 2  |                  |                       |                         |           |             |            |                  |           |
| 3  | 1000.00          | 345.00                | 16.50                   | -249.51   | -151.19     | 291.74     | -85.5            | 2.865     |
| 4  | 300.00           | 138.00                | 345.00                  | -0.26     | -41.99      | 41.99      | -0.6             | 0.448     |
| 5  | 1000.00          | 345.00                | 16.50                   | -824.75   | 52.91       | 826.45     | -99.8            | 8.100     |
| 6  | 300.00           | 138.00                | 345.00                  | -7.24     | -46.01      | 46.58      | -15.5            | 0.497     |
| 7  | 1000.00          | 345.00                | 230.00                  | 122.55    | 12.92       | 123.23     | 99.4             | 1.246     |
| 8  | 700.00           | 345.00                | 16.50                   | -519.70   | -61.29      | 523.30     | -99.3            | 5.491     |
| 9  | 800.00           | 345.00                | 16.50                   | -647.71   | -52.63      | 649.84     | -99.7            | 6.773     |
| 10 | 800.00           | 345.00                | 16.50                   | -629.17   | 4.21        | 629.18     | -100.0           | 6.360     |
| 11 | 600.00           | 230.00                | 16.50                   | -505.56   | -92.23      | 513.90     | -98.4            | 5.208     |
| 12 | 800.00           | 345.00                | 16.50                   | -648.12   | -163.28     | 668.37     | -97.0            | 6.555     |
| 13 | 700.00           | 345.00                | 16.50                   | -558.43   | -117.99     | 570.76     | -97.8            | 5.602     |
| 14 | 700.00           | 345.00                | 16.50                   | -538.34   | 44.55       | 540.18     | -99.7            | 5.257     |

# Transformer

|    | langle<br>[deg] | P losses<br>[MW] | Q losses<br>[MVAR] | Capacity<br>(Norm.)<br>[MVA] | Loading [%]<br>Capacity | Capacity<br>(Emer.)<br>[MVA] | Loading [%]<br>Capacity | Tap Ratio<br>% |
|----|-----------------|------------------|--------------------|------------------------------|-------------------------|------------------------------|-------------------------|----------------|
| 1  |                 |                  |                    |                              |                         |                              |                         |                |
| 2  |                 |                  |                    |                              |                         |                              |                         |                |
| 3  | 142.9           | 0.49             | 14.86              | 1100.00                      | 26.5                    | 1150.00                      | 25.4                    | 100.000        |
| 4  | 84.3            | 0.03             | 0.87               | 500.00                       | 8.4                     | 550.00                       | 7.6                     | 100.000        |
| 5  | -175.2          | 5.25             | 102.35             | 1100.00                      | 75.1                    | 1150.00                      | 71.9                    | 100.000        |
| 6  | 92.9            | 0.04             | 1.08               | 500.00                       | 9.3                     | 550.00                       | 8.5                     | 100.000        |
| 7  | -6.4            | 0.11             | 2.14               | 1100.00                      | 11.2                    | 1150.00                      | 10.7                    | 100.000        |
| 8  | 165.3           | 1.94             | 75.41              | 800.00                       | 65.4                    | 850.00                       | 61.6                    | 100.000        |
| 9  | 170.2           | 2.29             | 91.72              | 900.00                       | 72.2                    | 950.00                       | 68.4                    | 100.000        |
| 10 | -180.0          | 2.83             | 57.42              | 900.00                       | 69.9                    | 950.00                       | 66.2                    | 100.000        |
| 11 | 168.3           | 2.44             | 48.81              | 1400.00                      | 36.7                    | 1500.00                      | 34.3                    | 100.000        |
| 12 | 167.0           | 1.88             | 61.46              | 900.00                       | 74.3                    | 950.00                       | 70.4                    | 100.000        |
| 13 | 168.9           | 1.57             | 85.34              | 800.00                       | 71.3                    | 850.00                       | 67.1                    | 100.000        |
| 14 | -179.6          | 1.66             | 64.14              | 800.00                       | 67.5                    | 850.00                       | 63.6                    | 100.000        |

# Transformer

|    | Tap Pos<br>[%] | Min | Max | Setpoint<br>Min | Setpoint<br>Max |
|----|----------------|-----|-----|-----------------|-----------------|
| 1  |                |     |     |                 |                 |
| 2  | Tap Pos [%]    |     |     |                 |                 |
| 3  | 100.000        |     |     |                 |                 |
| 4  | 100.000        |     |     |                 |                 |
| 5  | 100.000        |     |     |                 |                 |
| 6  | 100.000        |     |     |                 |                 |
| 7  | 100.000        |     |     |                 |                 |
| 8  | 100.000        |     |     |                 |                 |
| 9  | 100.000        |     |     |                 |                 |
| 10 | 100.000        |     |     |                 |                 |
| 11 | 100.000        |     |     |                 |                 |
| 12 | 100.000        |     |     |                 |                 |
| 13 | 100.000        |     |     |                 |                 |
| 14 | 100.000        |     |     |                 |                 |

# Transformer

|    | Ctrld Bus/V<br>[pu] | Ctrled<br>BusID |
|----|---------------------|-----------------|
| 1  |                     |                 |
| 2  |                     |                 |
| 3  |                     |                 |
| 4  |                     |                 |
| 5  |                     |                 |
| 6  |                     |                 |
| 7  |                     |                 |
| 8  |                     |                 |
| 9  |                     |                 |
| 10 |                     |                 |
| 11 |                     |                 |
| 12 |                     |                 |
| 13 |                     |                 |
| 14 |                     |                 |