TechNote NEMA Unbalance Calculations Added

From OpenDSSWiki

As of this date, the latest OpenDSS build will include the percent NEMA unbalance calculation on the **Export SeqVoltages** and **Export SeqCurrents** reports. It is the last column on the report.

The NEMA method is frequently used in the US as a measure of the unbalance on motors. By including it on the reports with sequence voltages and currents, it can easily be compared to the negative-sequence unbalance that is used for the same purpose. The values should be close.

NEMA Unbalance Method

The NEMA method reports the largest difference in *magnitude* from the *average* voltage or current, divided by the average, in percent.

It is typically applied as a measure of the voltage unbalance because that is what causes excess heating in motors. However, the OpenDSS can report the value for currents as well

The values are reported only for buses and elements having at least 3 phases. The calculation is done for only the first three phases or nodes on a bus.

The code for making this computation may be found in the MathUtils.pas module.

--Rdugan 20:30, 14 September 2010 (UTC)

Retrieved from "http://localhost/mediawiki/index.php?
title=TechNote_NEMA_Unbalance_Calculations_Added&oldid=390"

- This page was last modified on 14 September 2010, at 12:30.
- This page has been accessed 276 times.