

VOTANO 100

What's New in Version 2.30

Compared to Version 2.20



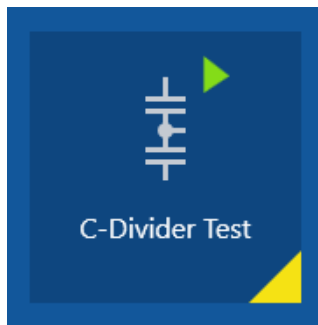
1 Improvements and new features

The new VOTANO 2.30 software and firmware offer several new features and improvements.



1.1 C-Divider Test

The C-divider Test is a new measurement module to test the capacitor stack of CVTs in detail. This innovative method accurately determines the individual C_1 and C_2 values, as well as the overall capacitance C_r , and the capacitive ratio K_c . By combining two different primary short-circuit tests on the capacitor stack in a new measurement method, these values can be determined for all CVT designs, even when no ground switch is available.



License required: C-Divider Test

1.2 Other new features

1.2.1 Import reference excitation curve

It is now possible to import the excitation curve from a previously performed VOTANO 100 measurement. If selected, the excitation test sequence will be skipped (saving time), and calculations and assessments will be based on the imported curve.

On multi-tap voltage transformers, the curve will be automatically scaled to correspond to the (partial) winding or tap combination that is presently configured in the test settings. Like this, it is also possible to test tap configurations, where the amount of turns is not sufficient for a core saturation. In such a case it is done by simply importing an excitation curve that has been measured on the full winding or with the extended excitation feature.

Excitation test: ☒

Extended excitation curve: ☐

Reference excitation curve: ☒

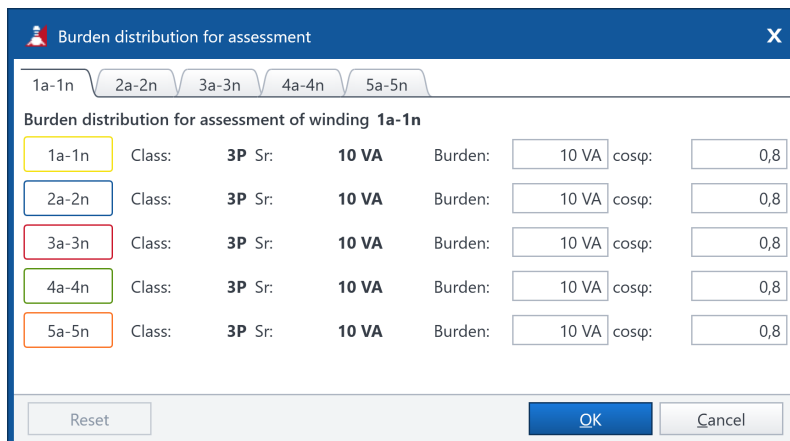
C:\...\\ReportTemplates\\Tests\\61869_3\\OuterTap.vta

...

1.2.2 Burden distribution for assessment

On multi-winding VTs, VOTANO 100 calculates ratio and phase accuracy and assessment results for burden distributions loaded with rated load according to the applied international standard (e.g. IEC 61869 or IEEE C57.13)

With the new dialog *Burden distribution for assessment*, the load (burden) distribution for multi-winding VTs can be freely configured. As a consequence it is possible to analyze ratio and phase accuracy even for more complicated burden distribution scenarios.



Burden distribution for assessment

1a-1n 2a-2n 3a-3n 4a-4n 5a-5n

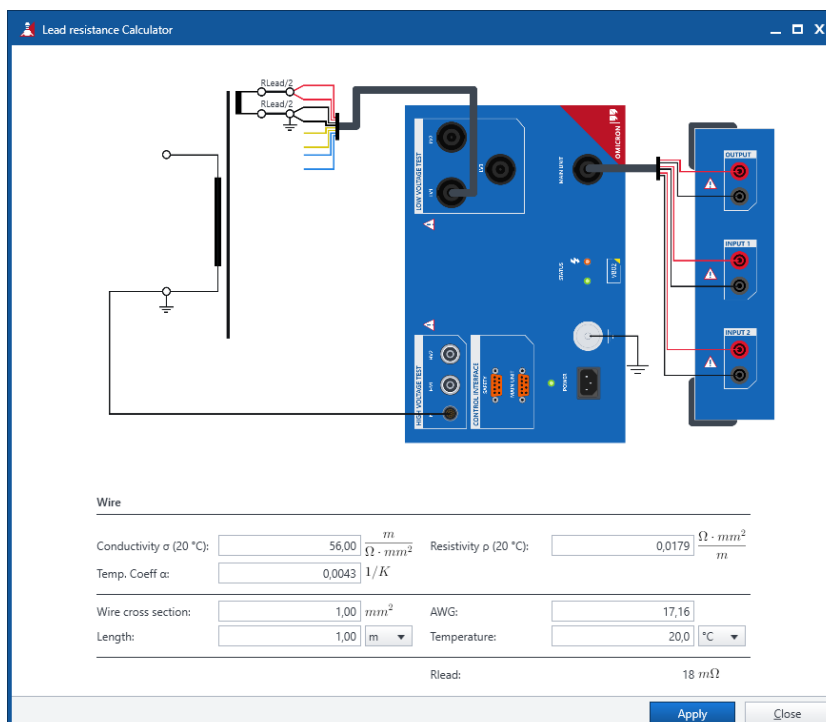
Burden distribution for assessment of winding 1a-1n

Winding	Class	Sr	10 VA	Burden	cosφ
1a-1n	3P	Sr	10 VA	10 VA	0,8
2a-2n	3P	Sr	10 VA	10 VA	0,8
3a-3n	3P	Sr	10 VA	10 VA	0,8
4a-4n	3P	Sr	10 VA	10 VA	0,8
5a-5n	3P	Sr	10 VA	10 VA	0,8

Reset OK Cancel

1.2.3 Consider lead resistance Rlead

This new feature is a useful tool to perform lead resistance calculation based on cable type and length. It helps integrate the lead resistance into the measurement.



Lead resistance Calculator

Diagram showing a circuit with a voltage source, a switch, and a load. The load is connected to a multi-winding VT (VOTANO 100) via leads. The leads are connected to the VT terminals. The VT is connected to a burden (10 VA) and a meter (VOTANO 100).

Wire

Conductivity σ (20 °C): $\frac{m}{\Omega \cdot mm^2}$ Resistivity ρ (20 °C): $\frac{\Omega \cdot mm^2}{m}$

Temp. Coeff α : $1/K$

Wire cross section: mm^2 AWG:

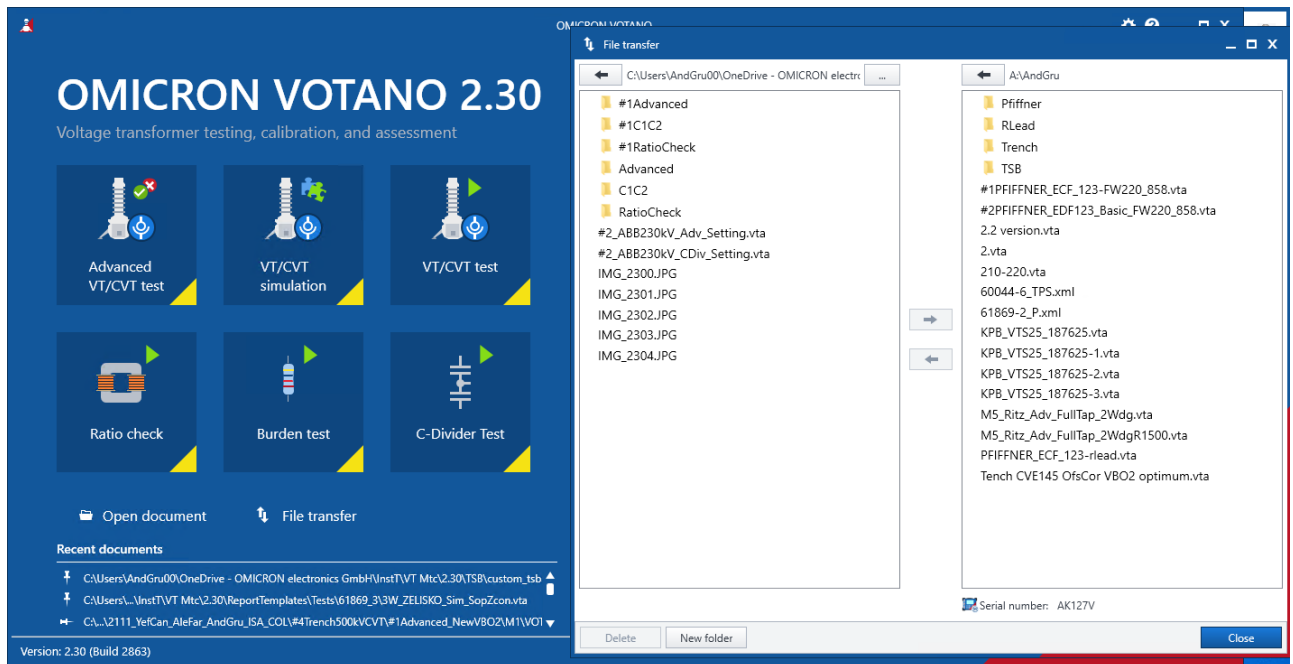
Length: m Temperature: °C

Rlead: 18 mΩ

Apply Close

1.2.4 File Transfer

It is possible to transfer files and folders between notebook and VOTANO 100.



1.3 Other improvements

- New report layout (and no macro support needed anymore)
- Portuguese language support
- FTDI-compliant device driver
- Automatic firmware version check

For more information, additional literature,
and detailed contact information of our
worldwide offices please visit our website.

www.omicronenergy.com

Subject to change without notice.