



VEBKO ONLINE HELP

“Check Test” Tab

Category	tester
Section	AMT VI STARTING Module
Language	English
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After performing the "Shot Test" in "VI Starting" room, it is time to perform "Check Test" and "Search Test". In "Check Test" the upper and lower tolerances of the relay that are displayed as dotted lines in "VI Starting Characteristic" are tested and evaluated. To perform the "Check Test", first it is necessary to draw some lines named "Check Line" in different sections of the diagram. To draw this line, first in "Origin" section from "Check Line" section, the start point of this line is specified. In "Voltage", "Current", "Phi" and "Angle" fields, origin point voltage, origin point current, the angle between voltage and current and the movement angle of the "Check Line" are specified respectively. In "Length" section, the length of the "Check Line" is entered in the intended cell.

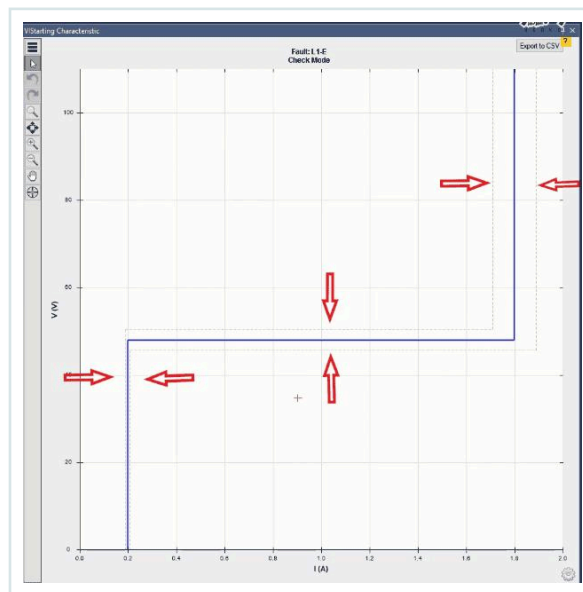
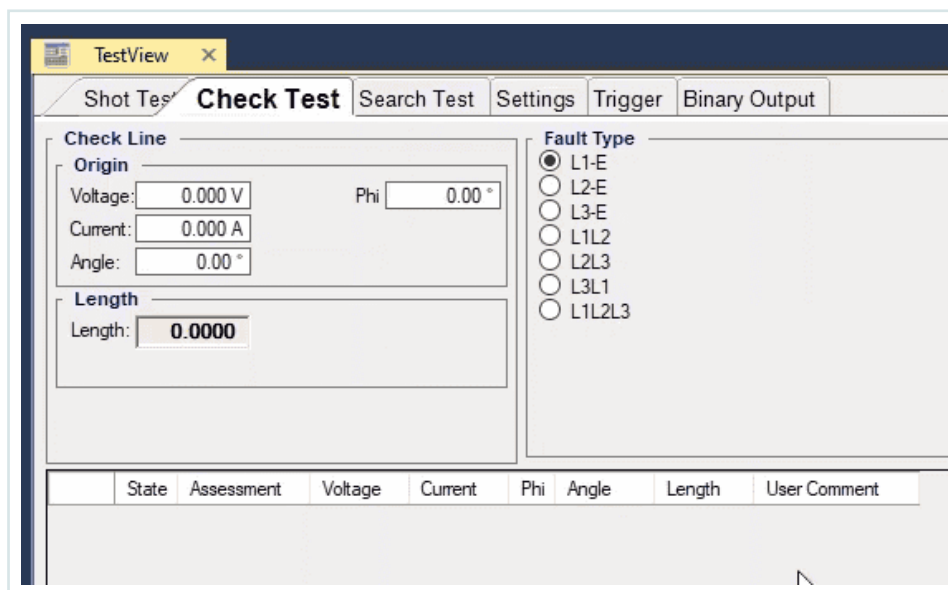


Figure 1



State	Assessment	Voltage	Current	Phi	Angle	Length	User Comment

Figure 2

Note that the drawn "Check Lines" must cross at least one of the tolerance lines of the point

characteristic curve. Then click on "Add" option to add the "Check Line" to "Check Test" lines table. Another way to draw a "Check Line" is to hold down "Ctrl" button and left-click in "VI Starting Characteristic" window and then move the cursor in your desired direction on the characteristic curve. You can see that the information of the drawn "Check Line" is displayed in the "Check Test" lines table. After drawing the "Check Line", the software evaluates the crossing point of the "Check Line" and the tolerance lines as a "Shot" test in accordance with the performance of the relay. Here, after performing the test, the relay performs a "PICK UP" in the lower tolerance and has no performance in the upper tolerance; so the test is "Passed". Other parts of this section such as "Fault Type" and "Remove All", "Sequencer" options etc. are similar to "Shot Test" section which has been explained in previous videos. The only additional option in this section is "Copy to Search". By marking one of the test lines and selecting this option, you can copy the selected line to "Search Test" and by selecting "Add" in "Search Test", this line is entered in the "Search Test" lines tables.

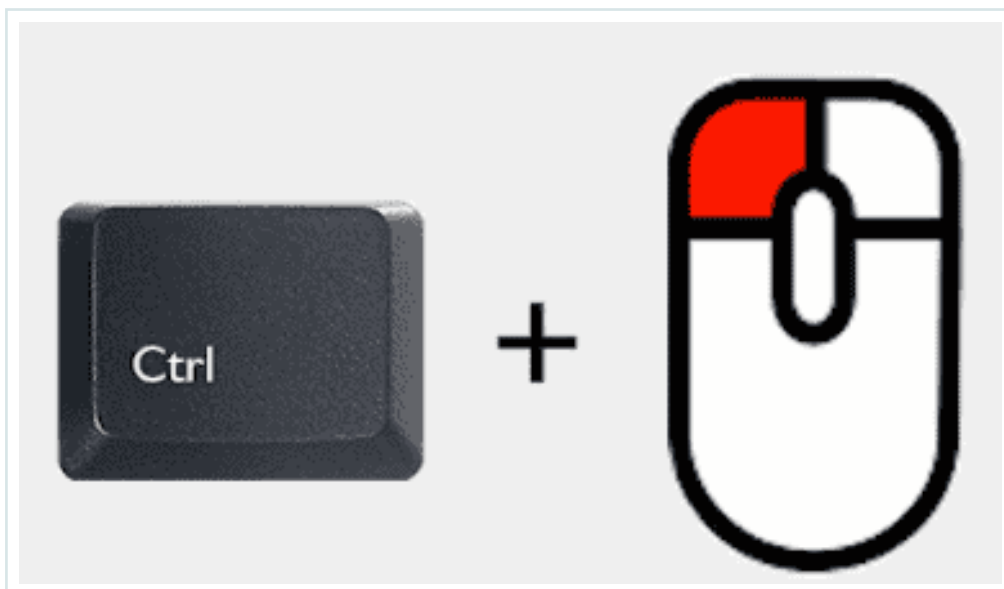


Figure 3

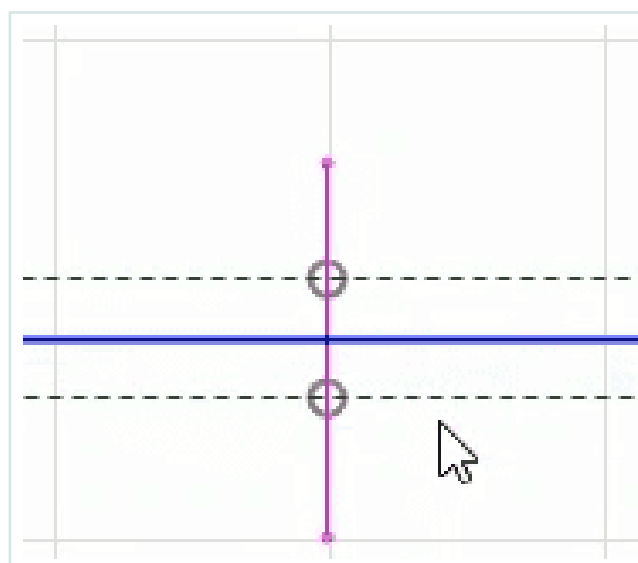
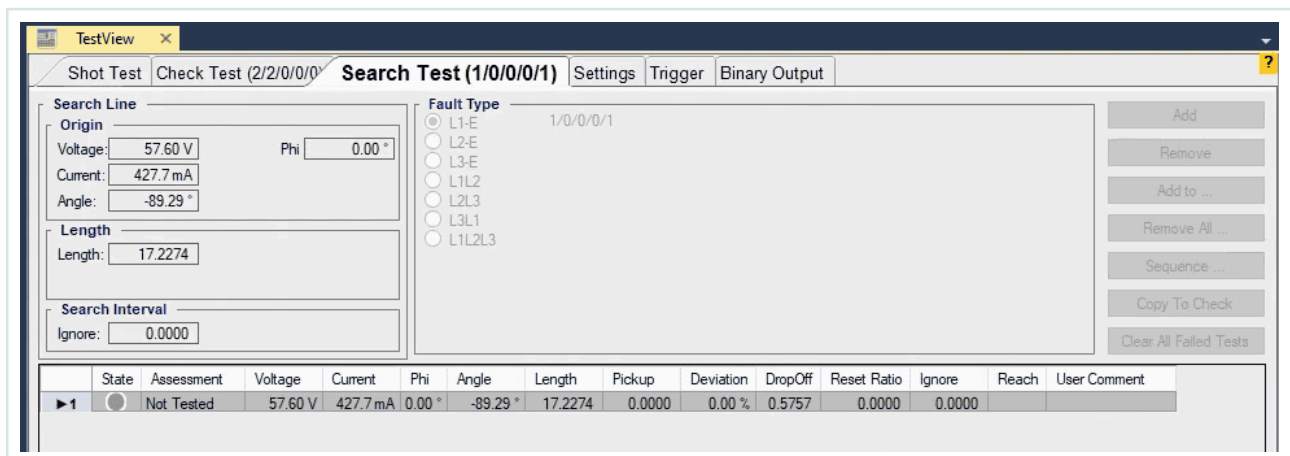


Figure 4

After "Check Test", the last test performed on the "VI Starting" characteristic curve is "Search Test". The purpose of this test is to find the characteristic curve line and drawing method of the "Search Line" is the same as the two previous methods explained for "Check Line".

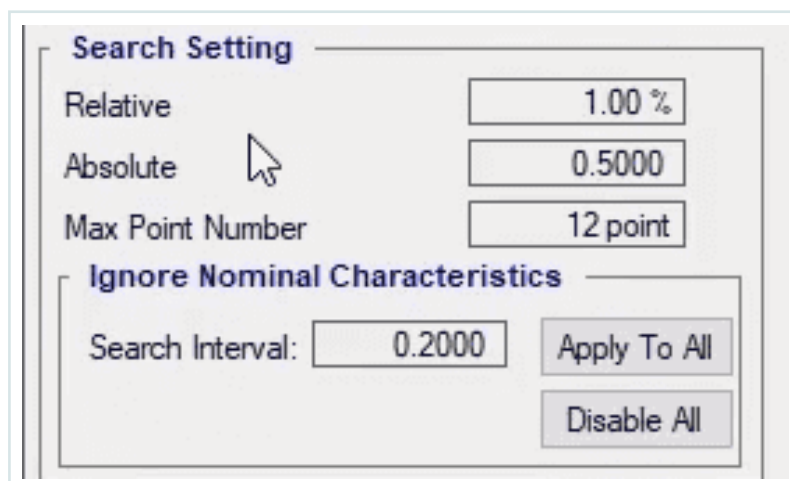
By performing the test, the software starts interpolating the characteristic curve by testing some points on the search line and determines the exact location of the characteristic curve. The number of points on the "Search Line" which are tested by the software is specified by the user in "Setting" tab in "Search Setting" section (which is in fact the resolution of the "Search Test"). There are three "Relative", "Absolute" and "Max Point Number" options in this section which determine the ending condition of the "Search Test". The first condition is "Relative" meaning if the difference between the test point value and previous test point is less than the value specified in this field, this point is the response of the test. The second condition is "Absolute" meaning if the difference between the test point and previous point is less than the value specified in this field, this point is the response of the test. And the third condition is "Max Point Number" meaning the test cannot be performed more than the number of points entered in this field and the last point is the response of the test.



The screenshot shows the TestView software interface with the "Search Test (1/0/0/0/1)" tab selected. The "Search Line" section includes fields for Origin (Voltage: 57.60 V, Current: 427.7 mA, Angle: -89.29 °, Phi: 0.00 °), Length (17.2274), and Search Interval (Ignore: 0.0000). The "Fault Type" section shows radio buttons for L1-E, L2-E, L3-E, L1L2, L2L3, L3L1, and L1L2L3, with L1-E selected. A table at the bottom displays test results for various parameters.

	State	Assessment	Voltage	Current	Phi	Angle	Length	Pickup	Deviation	DropOff	Reset Ratio	Ignore	Reach	User Comment
►1	●	Not Tested	57.60 V	427.7 mA	0.00 °	-89.29 °	17.2274	0.0000	0.00 %	0.5757	0.0000	0.0000		

Figure 5



The screenshot shows the "Search Setting" dialog box. It includes sections for "Relative" (1.00 %), "Absolute" (0.5000), and "Max Point Number" (12 point). There is also a section for "Ignore Nominal Characteristics" with a "Search Interval" of 0.2000 and buttons for "Apply To All" and "Disable All".

Figure 6

"Ignore" field in "Search Interval" section is used when you want to ignore the characteristic curve specified for the intended search line. By entering a number in this section, some points are added on the "Search" line with the specified value as the distance between them. For example, by entering 0.4 in this field, you can see that some lines are added on the "Search Line" with a 0.4 distance. If the test is performed, the points added on the "Search Test" are tested one after the other so that the exact location of the characteristic curve is determined. This option is used when the characteristic curve that you have for the test seems wrong or you have no characteristic curve at all. If you wish to do this for all of the test lines, you can use "Ignore Nominal Characteristic" section located in the "Setting" tab. To do this, by entering the value for "Search Interval" and selecting "Apply to all", you can apply this settings to all of the test lines and find the relay characteristic curve.

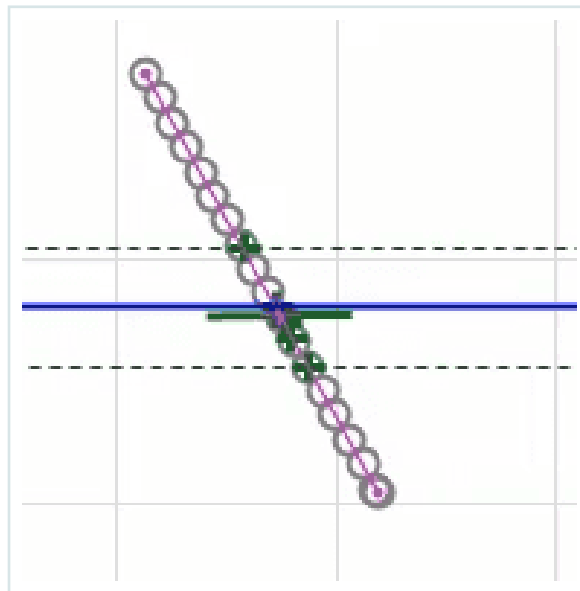


Figure 7

[jg1]Check_Test_tab