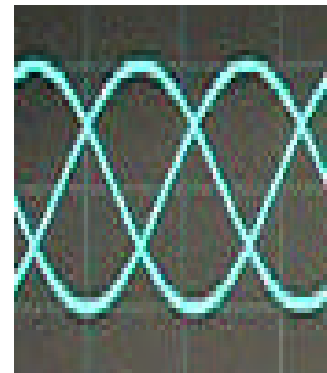


On the use of the Versatile Dual Three Phase Voltage Generator For Testing Protection Relay

By Denis Lachapelle eng.
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Today's power system transformers and motors require extensive use of protection relays to comply with the different electrical codes. Such protection relays offer protection for many conditions such as: over voltage, over current, differential, zero sequence, under over frequency, V/F ratio and many others conditions. The uses of these protection relays protect transformers and motors against improper power sources, loads or connectivity failure avoiding large loss of invested capital and extended down time.

Engineers developing these protection relays shall manipulate many three phases sources to provide signals equivalent to the normal and abnormal condition these relays shall detect. Most obvious solution is to use the grid voltage and step it down to convenient level. The various level required can be generated using autotransformers. This method is quite simple but not convenient and did not provide solution for all the conditions to be generated.



The Alesco Technologies AT231 provides a very convenient solution for this purpose. The AT231 provides two three-phases sources and independent control of both sources, It also provides control of all sources parameters such as frequency, phase of each line and level of each line. On top of that the relative phase between source one and two is globally controlled. Windows Dialog in Figure 1 clearly shows which parameters could be controlled. Note that each phase angle could be controlled independently providing capability of simulating all sort of abnormal conditions.

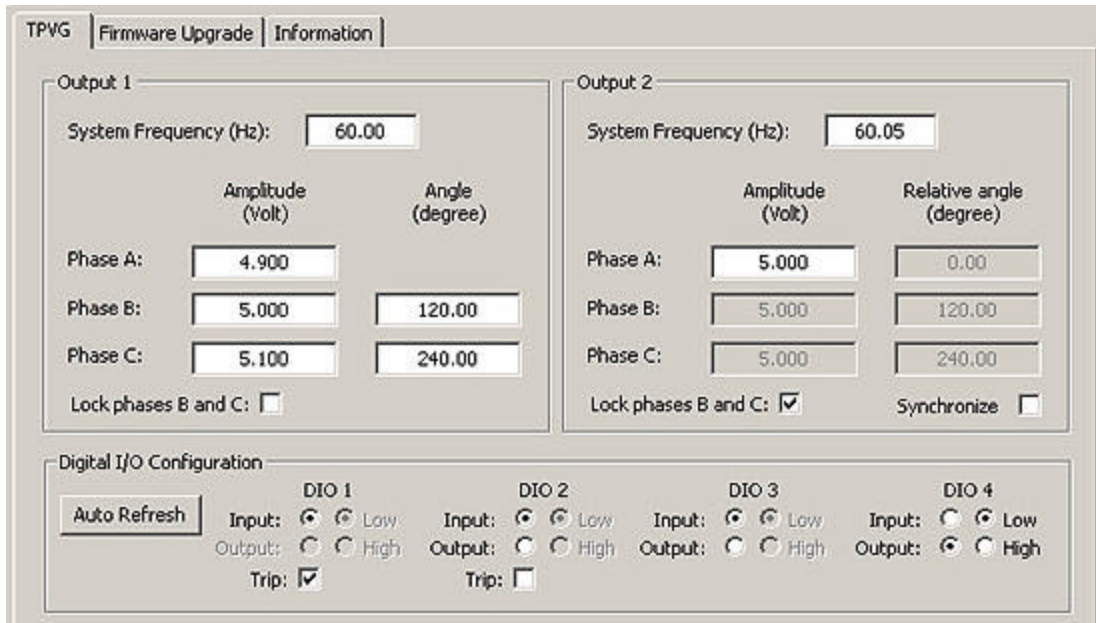


Figure 1, Windows Dialog

The AT231 clearly provides a valid and very competitive solution for those developing protection relay unit. The AT231 fits very well on production line for testing the protection relay ensuring full compliance of your product. Attach it to a USB port and start testing.
