TERCO

New Measurement System for Power System Simulator PST 2200

Brochure

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Table of contents

1 General Information

The complete PST hold altogether 17 highly advanced microprocessor-controlled measurent devices enabling a high ability to monitor the complete system extensively.

All devices hold a distinct display presenting the measurement in five digits. The microprocessor- based technology enables several interesting parameters in each unit, where 3-phase units holds a capability to visualize over 40 power energy quantities divided in selectable pages (each page displaying 4-parameters at a time).

Two digital bargraphs, each with dual graphs (one for each busbar) comprises the ability to monitor essential parameters in synchronisation process.

The units perform all neccesary operations in independent enclosures, from measuring (directly without transformers etc) to presentation on the display and data acqusition. All units can be connected together on a databus for instrumentation (optional in SCADA applications).

PST 2210 Power Plant Module

PST 2230 Receiving Substation Module

2 PST 2210 Power Plant Module

The power plant module comprises instrumentation divided in 13 microprocessor-controlled devices, which can be seen below:

3-phase instruments (three positions):

- Three 3-phase power network parameter analyzers displaying over 40 power energy quantities divided in selectable pages (each page displaying 4-parameters at a time), featuring for instance:
  - Average 3-ph voltage/current
  - Visualisation of non symmetrical loads etc. by means of:
  - Both phase-phase and phase-earth voltages
  - Independent phase currents
  - Average 3-ph active-, reactive- and apparent-power
  - Independent phase active-, reactive- and apparent-powers
  - Average 3-ph power factor
  - Independent phase power factors
  - Active-, reactive- and apparent- energy

Smaller instruments (seven positions):

- Generator speed featuring for instance:
  - Speed range 0-3000 rpm
  - Storing of max/min-values
- DC Machine current (storing of max-/min- values)
- Generator magnetizing current (storing of max-/min- values)
- Generated voltage (storing of max-/min- values)
- Generated current (storing of max-/min- values)
- Two instruments for voltages on A- and B-busbars:
  - Phase-phase and phase-earth by means of selector switch
  - Storing of max/min-values

Bargraphs (two positions):

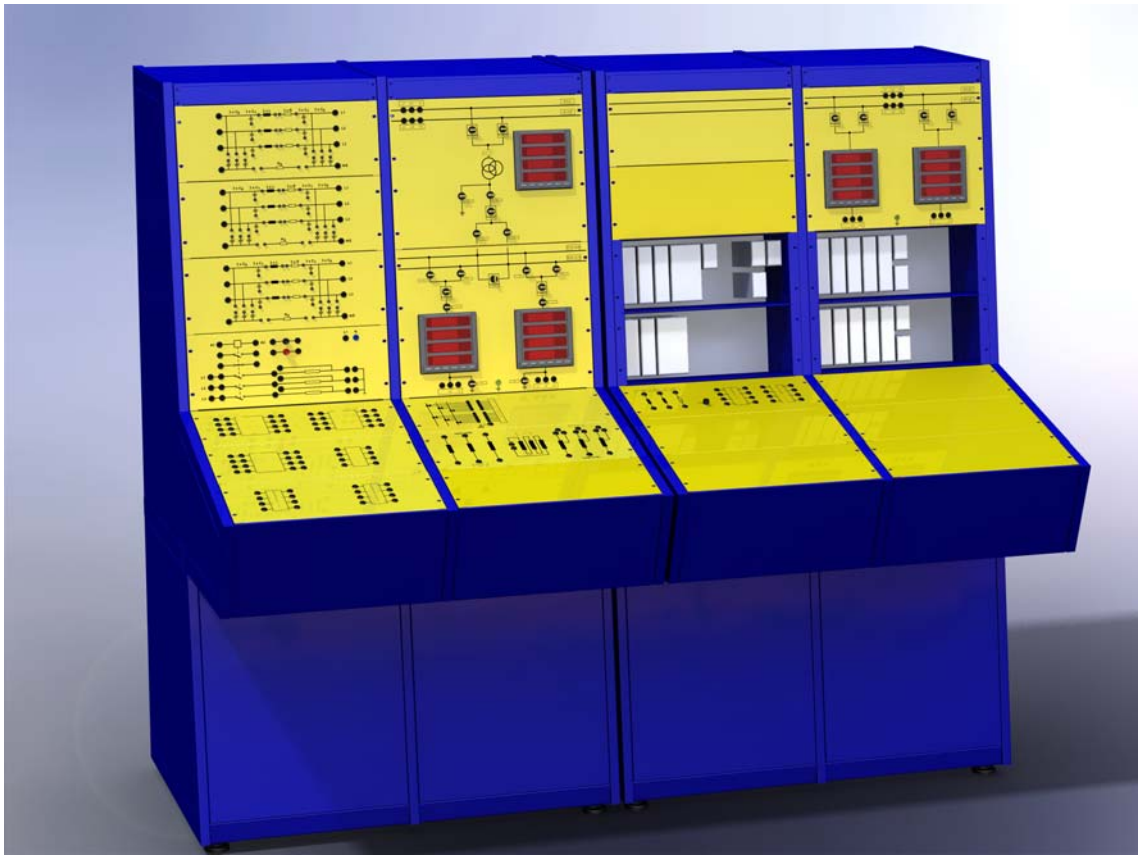
- Digital bargraphs, each with dual graphs (one for each bushbar) comprises the ability to monitor essential parameters in synchronisation purposes.
  - Voltage both busbars monitored with leds and bargraphs (380-420VAC)
  - Frequency both busbars displayed with leds and bargraphs (45-55Hz)
  - Three colors showing for instance alarms selectable in different colors

Notice!

All instruments hold the possibility to be connected together on a instrument bus (optional in SCADA applications). Integration with older SCADA systems can be done in two ways: either by means of the instruments analog outputs connected to existing SCADA analog input nodes (this enables only the possibility for a few preset parameters) , or most preferably by means of connecting the instrument bus to ethernet collecting points which enables access to all instrument parameters.

3 PST 2230 Receiving Substation Module

The receiving substation module comprises instrumentation divided in five microprocessor-controlled devices, which can be seen below:



3-phase instruments (five positions):

- Three 3-phase power network parameter analyzers displaying over 40 power energy quantities divided in selectable pages (each page displaying 4-parameters at a time), featuring for instance:
  - Average 3-ph voltage/current
  - Visualisation of non symetrical loads etc. by means of:
  - Both phase-phase and phase-earth voltages
  - Independent phase currents
  - Average 3-ph active-, reactive- and apparent-power
  - Independent phase active-, reactive- and apparent-powers
  - Average 3-ph power factor
  - Independent phase power factors
  - Active-, reactive- and apparent- energy

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