Three-Phase Voltage Generator for Stands in the Research Concerning Devices Models for Energy Systems Interconnection

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Abstract — **Due to with the actuality of the task of interconnection of non-synchronously operating alternating current energy systems, an experimental comparison of the interconnection devices models, which implement various methods of operation of these devices, is required. Therefore, a stand is needed, that allows conducting experimental studies with the specified models of devices. The basis of the stand are two three-phase voltage generators simulating non-synchronously operate energy systems An important requirement for each generator is the ease of frequency control while maintaining a phase shift between phase voltages. For this purpose, a master oscillator with a frequency much higher, than the required one, was supplied. Further, the frequency divider and the decoder allow at the outputs of the latter to obtain signals with a constant value of the phase shift between them with a change of the frequency of the input pulses succession from the master oscillator. The subsequent chains in each phase form a sinusoidal voltage.**

Keywords—**alternating current energy systems; three-phase voltage generator; master oscillator; frequency divide**

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