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Abstract: Several didactic modules for an electric machinery laboratory are presented. The modules are dedicated for DC machinery control and get their characteristic curves. The didactic modules have a front panel with power and signal connectors and can be configurable for any DC motor type. The three-phase bridge inverter proposed is one of the most popular topologies and is commercially available in power package modules. The control techniques and power drives were designed to satisfy static and dynamic performance of DC machines. Each power section is internally self-protected against misconnections and short-circuits. Isolated output signals of current and voltage measurements are also provided, adding versatility for use either in didactic or research applications. The implementation of such modules allowed experimental confirmation of the expected performance.

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