

Since its introduction in the nineteenth century, the electric motor has become a major force in industry. Alongside their classical applications in mechanical engineering, DC-motors in particular have found widespread use in powered vehicles. Electric motors' ever-growing functionality, stricter regulations such as those for product liability, and new standards such as ISO9000, require new and/or revised testing procedures. Modern test stands require calibrated instruments and full traceability of test results. Vast amounts of data must be captured, selectively filtered, displayed and reported.



Test rig control unit with measurement system and motor power excitation

The loading mechanism is designed for the largest sample to be tested. All mechanical, electrical and thermic properties, overload capacity and technical specifications such as the efficiency are determined.

Along with the determining of characteristic curves and the attunement of motor components, life tests

Typical imc test stands for laboratories or for test areas are of the conventional variety. They handle large input ranges and are adapted to a wide scope of applications. A controlled-torque 4-quadrant drive provides a unit under test with the desired RPMs. The corresponding torque is measured with a measurement shaft. Alternatively, various load torques can be set. Adapting the test stand to different motor parameters is accomplished using special apparatuses and torque sensors with the corresponding input ranges.

can also be conducted. This is done by specifying load profiles or by means of a mass simulation. External quantities, for instance temperature monitoring, are also possible to acquire.

