

METHOD FOR MEASURING VOLTAGE DROP ALONG A LOAD OF THE MIG PULSE POWER GENERATOR*

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The work is devoted to development of a technique for measuring the voltage drop along a load of the pulse power generator MIG [1]. In the course of solving the problem posed, we tested various approaches to solving the problem of voltage measurement. The amplitude values of the voltage drop in the point of the voltage sensor location can be several hundred kilovolts with a rise time of about 80 ns. Voltage drop measurements are made in conditions of closely spaced current-carrying electrodes. The most reliable and adequate scheme that allows us to measure the voltage drop along the load is an inductive divider. The parameters and features of an inductive voltage divider developed and implemented in the course of this task are described.

REFERENCES

- [1] I.E. Gorelchanik, A.F. Korostelev, V.K. Petin, N.A. Ratakhin, A.N. Shepelev, V.F. Fedushchak, S.V. Shlyakhtun, "High-power electron beam generator MIG," 13th International Conference on High-Power Particle Beams, BEAMS 2000, pp. 172-175, 6220141, 2000.

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