

DESIGN AND DEVELOPMENT OF THE 4-THYRISTOR CHOPPER

The report discusses the design and development of a small-scale four thyristor chopper circuit to confirm previously identified theoretical predictions. Included within the report is the chopper design, tests conducted, parameters obtained and theoretical waveforms predicted for the circuit.

The report concludes that a low power chopper has been successfully operated in the motoring mode at frequencies of 500Hz, 1000Hz and 1500Hz. It is not envisaged that any particular problems would be encountered developing a full size version of the model.

It is recommended that the chopper is operated in the braking mode, and that further work on optimising the circuit is completed, along with operation of the chopper under fault conditions.