

A Crowbarless High Voltage Power Converter for RF Klystrons, L.M. FORD, S.A. GRIFFITHS, M.T. HERON, WC.W. HORROBIN, D.E. POOLE, CLRC Daresbury Laboratory, Warrington WA4 4AD, UK - Advances in power electronic components make feasible the production of switch-mode power converters in module sizes exceeding 100 kW. The development of a power converter system in modular form for powering high power CW RF klystrons will be described. It has the advantage that the stored energy at high voltage is so small that conventional crowbar protection is unnecessary. Results of work to test the principle on a 50 kW klystron used for power testing accelerating cavities at Daresbury will be presented.