2-MW dc Test Load

A 2-MW, high-voltage dc resistive load is utilized as a test load for high-voltage, high-power dc power supplies. The load consists of a series string of resistance wire assemblies that represent a 4750- Ω nominal resistive load to dissipate 2 MW of power at a maximum input voltage of 95 kV. The resistor elements are contained within a stainless steel pressure vessel that is cooled by a deionized water flow of 350 gal/min. The test-load system includes a dedicated interlock system to provide equipment protection against arcing inside the pressure vessel, low or absent coolant flow, low water resistivity, or return-water over-temperature conditions.

Examples of use:

 High-power commissioning tests on the Advanced Photon Source 352-MHz klystron high-voltage power supplies



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