

DESIGN OF THE LIQUID HELIUM SUPPLY UNIT OF THE SOLEIL SUPERCONDUCTING RF SYSTEM

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Abstract

In the Storage Ring of the Synchrotron SOLEIL light source, two cryomodules will provide the maximum power of 600 kW required at the nominal energy of 2.75 GeV with the full beam current of 500 mA and all the insertion devices. Each cryomodule contains a pair of 352 MHz superconducting cavities (Nb/Cu), cooled in a bath of liquid helium at 4.5 K. A single cryogenic plant will supply the liquid helium for the two cryomodules.

The process that led us to the final cryogenic plant specification and design is explained. The first experimental results and the status of the system are also reported.

NO SUBMISSION RECIEVED