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C3Or3A-02: Commissioning and cooldown results of DALS test facility distribution system

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The purpose of the Dalian Advanced Light Source (DALS) Test Facility project is to test core components of DALs accelerators, such as cryomodules and superconducting cavities. The project includes a horizontal testbench (HTB) for cryomodule test, a vertical testbench (VTB) for superconducting cavity test, and an injector testbench (ITB) for beam test. The cryogenic system of the test facility has a capacity of 370 W@2 K. In addition to the refrigerator system, the most critical part of the cryogenic system is the distribution system (CDS). The distribution system has now been installed and successfully commissioned with the VTB and HTB. Its first cooldown process has also been completed. This paper introduces the distribution system process and cooldown requirements, analyzes the commissioning results, and discusses the possible improvements in the future operation.

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