MT29 Abstracts and Technical Program



Contribution ID: 528

Type: Contributed Oral

Sat-Mo-Or6-04: Qualification and test analysis of HL-LHC magnets and cryo-assemblies

Saturday 5 July 2025 12:00 (15 minutes)

The High-Luminosity upgrade of the LHC at CERN requires 32 new cryo-assemblies to be installed around the interaction points 1 and 5. They incorporate 90 magnets of various types, and in addition several prototypes and spares are built. The magnets are produced within the HL-LHC project, and a large part is tested at CERN. Most of the magnets are tested first in standalone configuration in a vertical test bench, before being assembled in a cold mass and tested in its final cryo-assembly. The test of about half of the cryo-assemblies, including the prototype magnets, have been completed at CERN, while in the vertical configuration about 70 % of the magnets have been tested.

In this paper we show the progress in testing, and we report on the most important findings of magnet performance and test results of the magnets tested at CERN in stand-alone and in cold mass configuration.

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Session Classification: Sat-Mo-Or6 - High Luminosity LHC