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## Magnetic Measurements on Short Models and Long Coil Assemblies of the 11-T dipoles for HL-LHC

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For the High-Luminosity upgrade of the Large Hadron Collider (HL-LHC), the development of the 11-T Nb<sub>3</sub>Sn dipole is progressing. At present, one double-aperture and five single-aperture short-model magnets have been built and tested. Magnetic measurements have been performed both at ambient and cryogenic temperature. Besides, the first 5.5-m-long prototype is being produced and the first collared-coil assembly has been measured at ambient temperature. In this paper, the results collected up to the present moment are reported and discussed. The geometrical field multipoles, the iron saturation effects as well as the effects of persistent currents are presented. Experimental data are compared with the magnetic calculations using the CERN field computation program ROXIE, and discussed in view of the construction of the final magnets.

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