# ABSTRACT

This work presents an analysis of the aerodynamic performance of a centrifugal fan with forward curved blades (Sirocco) applied to electric motors. In this analysis were carried out computational fluid dynamics (CFD) simulations and experimental tests for comparison of results.

The focus of this analysis is the performance comparison among three different models of general connection interface that are required for the connection between the grids of the rotating and stationary domains of CFD simulation, considering the method adopted by the *open foam* software used as computational tool. Thereby, Frozen Rotor, Stage, and Transient Rotor-Stator were the interface models evaluated.

For comparison reference, the experimental data were used to evaluate the performance of each interface models for overall operating range of the fa