

- j) **S. Wahsh, A. Yassin, and J. Shazly, " Effect of Rotor Speed on the Thermal Model of AFIR Permanent Magnet Synchronous Motor", International Journal of renewable energy research, Vol.7, No.1, 2017.**

Thermal modeling for electrical machines at different operating conditions is very important to estimate its temperature limits. This paper studies the influence of varying the rotor speed at full load on a three dimension finite element (FE) thermal model of an axial flux interior rotor (AFIR) permanent magnet synchronous motor. The study includes analyzing at rotor speeds of 1000 rpm and 7000 rpm and a comparison of the resulted temperature values of both cases.