

عنوان مقاله:

A Comprehensive Review on High Speed Permanent Magnet Motors and their Modern Applications

محل انتشار:

فصلنامه سیستم های تبدیل انرژی الکترومکانیکی، دوره 1، شماره 2 (سال: 1398)

تعداد صفحات اصل مقاله: 7

نویسندگان:

.Assistant Professor, Electrical Machine Research Group, Niroo Research Institute - - -

Electric Machinery Research Group, Niroo Research Institute, NRI, Tehran, Iran - - -

خلاصه مقاله:

Synchronous speeds in all types of alternating current machines depend on the frequency of the power grid, and performance at higher speeds at steady conditions requires higher frequency feeds. The development of speed control drive technology in recent decades has prompted renewed attention to high-speed engines. Important advantages of using high speed electric motors include higher density (and smaller dimensions) and greater torque generation capability. Also, the use of these motors enables the removal of the gearbox and lubrication system, which reduces maintenance costs. Nowadays, surface-mounted PMSMs are increasingly used for high-speed applications, because of the merits of simple structure and high-strength of the rotor. This paper first discusses the fundamental differences in the configurations of ordinary and high-speed permanent magnet motors, considering their specific characteristics. The specimens and their properties, have been discussed. Finally, the modern applications of high-speed permanent magnet motors have been introduced. also, the main manufacturers of high speed synchronous .motors have been presented

کلمات کلیدی:

Synchronous Motor, Permanent Magnet, High speed

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1150198>

