Can high frequency inverters perform rotational induction

It is usually believed that a solid-rotor induction motor has poor electrical properties. According to our experience, however, very good properties can be reached when a motor and a drive are properly ...

Inverter caused magnetic noise is usually excited with twice switching frequency ("pulse frequency"). Modal vibration is r = 0, so the sound is far reaching and well audible.

zero voltage switching needed for high efficiency operation at high frequency. While an inverter can be inductively preloaded to provide the needed inductive load current for zero voltage switching across ...

This whitepaper provides background on three-phase AC motors and inverters, and what to consider when specifying a motor and inverter pair for optimal performance.

Called Adjustable Speed Drives, Variable Frequency Drives or just Inverters, they caught on quickly due to the many advantages they offer. Equipment builders and plant engineers quickly saw the ...

IMs are the best choice for high-power applications, as they offer high torque, high reliability, and high robustness [38]. Since no electromagnetic losses caused by spinning are ...

In this context, this work presents a back-to-back converter model for driving induction machines. The converter is designed to correct the power factor of the point common coupling ...

Induction heating is extensively utilized in various applications such as melting, metal forming, and heat treating. To facilitate high-frequency (HF) induction.

In this study, the design and analysis of a voltage source series resonance inverter, one of the soft-switching inverters, for induction heating process has been carried out.

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They are designed first and foremost for continuous operation from the fixed frequency mains, and running at base speed. When such a motor is operated at a low frequency (e.g. 10 Hz), the speed is ...

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