عنوان فارسی مقاله:
الگوریتم تقسیم قدرت برای موتور کنترل برداری شش فازه با AC
چهار درایو اینورتر مرحله ولتاژ سه فازه مرسوم

عنوان انگلیسی مقاله:
Power sharing algorithm for vector controlled six-phase AC
motor with four customary three-phase voltage source inverter drive
6. Conclusion

This paper presented an original and effective power sharing algorithm based on field oriented control (FOC) in synchronous reference frame for six-phase (asymmetrical) open-end stator windings motor. Power driver circuit consists of four customary three-phase voltage source inverters (VSIs), each one connected across the open-ends of the stator windings to framed multi-phase inverter drive configuration. The standard three-level space vector modulation is adopted for each VSI to behave as three-level output voltage generator. The proposed power sharing algorithm consists of three variables corresponding to three degrees of freedom in control. Two variables can share the two voltages between two inverters of each two three-phase open-end stator windings. The third variable can share the current between two open-end stator windings. Detailed investigation are carried out by the implementation of the complete ac drive model with power sharing (FOC) algorithm in numerical simulation software, and all the proposed balanced/unbalanced theoretical developments successfully are verified.