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Title

Subtitle

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P_n ASM

2 Design

The Permanent Magnet assisted synchronous reluctance motor (PMSynRelM) is widely used for its significant advantages of small size, low loss, high efficiency, better performance than plain synchronous reluctance motors SynRelM and wide constant power to speed range. [1], [2]

2.1 Stator

There are many possibilities on how to connect the stator winding. Research has been carried out for standard Delta or Star winding, but to increase the torque for same stator current the combined Start-Delta winding was proposed. The first research has been carried out for standard SynRelM in [3] and then extended to PMSynRelM prototypes in [4]. The main idea of the hybrid Delta-Star connection is to split the standard phase wiring into two parts. The one part is for the Delta connection, the other for Star connection. Then the coils of wiring are connected to series.

3	Control
3.1	Mathematical modelling
3.2	Control strategies
4	Comparison to others
5	Usage

Conclusion

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Appendix A: List of symbols and abbreviations