



T-Connected Multi-Pulse AC-DC Converters for Power Quality Improvement

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Condition: New. Publisher/Verlag: LAP Lambert Academic Publishing | 28, 30, and 36-pulse ac-dc converters | This book presents the design and analysis of T-Connected autotransformer based multipulse ac-dc converters which supplies a direct torque controlled motor drive in order to improve power quality conditions at the point of common coupling. A T-connected autotransformer is designed to supply the rectifiers. This autotransformer makes use of only two single-phase transformers, resulting in reduced volume, weight, and the cost of the drive as compared with polygon structure. The design procedure of magnetics is in a way such that makes it suitable for retrofit applications where a six-pulse diode bridge rectifier is being utilized. The aforementioned structure improves power quality criteria at ac mains and makes them consistent with the IEEE-519 standard requirements for varying loads. Furthermore, near unity power factor is obtained for a wide range of DTCIMD load operation. A comparison is made between 6-pulse, 28-pulse, 30-pulse, and 36-pulse converters from view point of power quality indices. Results show that the THD of input current is less than 5% for the 28-pulse topology and less than 3% for the 30-pulse topology and less than 4% for the 36-pulse topology at variable loads. |...



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Reviews

A must buy book if you need to adding benefit. This is for anyone who statte that there had not been a well worth reading through. Its been designed in an exceptionally straightforward way which is simply right after i finished reading this book where basically changed me, change the way i think.
-- **Adrien Robel**

Merely no words to spell out. I am quite late in start reading this one, but better then never. I am happy to explain how this is actually the very best publication we have go through within my personal daily life and can be he best ebook for at any time.
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