



DAFTAR PUSTAKA

- [1] Z. Tang, Y. Yang, and F. Blaabjerg, “Power electronics: The enabling technology for renewable energy integration,” *CSEE Journal of Power and Energy Systems*, vol. 8, no. 1, pp. 39–52, 2022.
- [2] M. Gough, S. F. Santos, A. Almeida, M. Lotfi, M. S. Javadi, D. Z. Fitiwi, G. J. Osório, R. Castro, and J. P. S. Catalão, “Blockchain-based transactive energy framework for connected virtual power plants,” *IEEE Transactions on Industry Applications*, vol. 58, no. 1, pp. 986–995, 2022.
- [3] V. Karthikeyan, S. Rajasekar, S. Pragaspthy, and F. Blaabjerg, “Core loss estimation of magnetic links in dab converter operated in high-frequency non-sinusoidal flux waveforms,” in *2018 IEEE International Conference on Power Electronics, Drives and Energy Systems (PEDES)*, 2018, pp. 1–5.
- [4] C. W. T. McLyman, *Transformer and inductor design handbook*. CRC press, 2017.
- [5] L. Deng, Q. Sun, F. Jiang, S. Wang, S. Jiang, H. X. Xiao, and T. Peng, “Modeling and analysis of parasitic capacitance of secondary winding in high-frequency high-voltage transformer using finite-element method,” *IEEE Transactions on Applied Superconductivity*, vol. 28, no. 3, pp. 1–5, 2018.
- [6] T. O. Olowu, H. Jafari, M. Moghaddami, and A. I. Sarwat, “Multiphysics and multiobjective design optimization of high-frequency transformers for solid-state transformer applications,” *IEEE Transactions on Industry Applications*, vol. 57, no. 1, pp. 1014–1023, 2021.
- [7] E. S. Lee, J. H. Park, M. Y. Kim, and J. S. Lee, “High efficiency integrated transformer design in dab converters for solid-state transformers,” *IEEE Transactions on Vehicular Technology*, vol. 71, no. 7, pp. 7147–7160, 2022.
- [8] G. Dong, J. Zou, R. Bayford, X. Ma, S. Gao, W. Yan, and M. Ge, “The comparison between fvm and fem for eit forward problem,” *IEEE Transactions on Magnetics*, vol. 41, no. 5, pp. 1468–1471, 2005.
- [9] N. Zahoor, A. A. Dogar, and A. Hussain, “Determine the optimum efficiency of transformer cores using comparative study method,” *Engineering Proceedings*, vol. 12, no. 1, p. 35, 2021.
- [10] I. Villar, “Multiphysical characterization of medium-frequency power electronic transformers,” Ph.D. dissertation, EPFL, 2010.



- [11] A. M. Elrajoubi and S. S. Ang, "High-frequency transformer review and design for low-power solid-state transformer topology," in *2019 IEEE Texas Power and Energy Conference (TPEC)*, 2019, pp. 1–6.
- [12] A. E. Shafei, S. Ozdemir, N. Altin, G. Jean-Pierre, and A. Nasiri, "A high power high frequency transformer design for solid state transformer applications," in *2019 8th International Conference on Renewable Energy Research and Applications (ICRERA)*, 2019, pp. 904–909.
- [13] P. Horowitz and W. Hill, *The Art of Electronics*, 3rd ed. USA: Cambridge University Press, 2015.
- [14] S. Zhang, C. Yao, X. Zhao, J. Li, X. Liu, L. Yu, J. Ma, and S. Dong, "Improved flux-controlled vfcv strategy for eliminating and measuring the residual flux of three-phase transformers," *IEEE Transactions on Power Delivery*, vol. 35, no. 3, pp. 1237–1248, 2020.
- [15] H. Gamo, "A general formulation of faraday's law of induction," *Proceedings of the IEEE*, vol. 67, no. 4, pp. 676–677, 1979.
- [16] W. H. Hayt and J. A. Buck, *Engineering Electromagnetics*, 8th ed. New York, NY: McGraw-Hill Professional, Jan. 2011.
- [17] A. E. Umenei, Y. Melikhov, and D. C. Jiles, "Analytic solution for variations of magnetic fields in closed circuits: Examination of deviations from the "standard" ampere's law equation," *IEEE Transactions on Magnetics*, vol. 47, no. 4, pp. 734–737, 2011.
- [18] G. Boguslaw, M. Stepień, Z. Kaczmarczyk, E. Maciąk, and M. Zygmanski, "The experimental coaxial transformer - technology and characteristics," 01 2005.
- [19] [Online]. Available: <https://circuitglobe.com/difference-between-core-type-and-shell-type-transformer.html>
- [20] A. Venugopal and F. Robert, "Investigation on losses with various emerging core and winding materials in a high frequency planar transformer," *Periodica Polytechnica Electrical Engineering and Computer Science*, vol. 67, no. 2, p. 194–203, 2023. [Online]. Available: <https://pp.bme.hu/eecs/article/view/21054>
- [21] R. Arseneau, E. So, and E. Hanique, "Measurements and correction of no-load losses of power transformers," *IEEE Transactions on Instrumentation and Measurement*, vol. 54, no. 2, pp. 503–506, 2005.

- [22] E. Dlala, A. Belahcen, J. Pippuri, and A. Arkkio, ‘‘Interdependence of hysteresis and eddy-current losses in laminated magnetic cores of electrical machines,’’ *IEEE Transactions on Magnetics*, vol. 46, no. 2, pp. 306–309, 2010.
- [23] C. P. Steinmetz, ‘‘On the law of hysteresis,’’ *Transactions of the American Institute of Electrical Engineers*, vol. IX, no. 1, pp. 1–64, 1892.
- [24] J. Li, T. Abdallah, and C. Sullivan, ‘‘Improved calculation of core loss with non-sinusoidal waveforms,’’ in *Conference Record of the 2001 IEEE Industry Applications Conference. 36th IAS Annual Meeting (Cat. No.01CH37248)*, vol. 4, 2001, pp. 2203–2210 vol.4.
- [25] H. Li, L. Wang, J. Li, and J. Zhang, ‘‘An improved loss-separation method for transformer core loss calculation and its experimental verification,’’ *IEEE Access*, vol. 8, pp. 204 847–204 854, 2020.
- [26] Z. Liu, J. Zhu, and L. Zhu, ‘‘Accurate calculation of eddy current loss in litz-wired high-frequency transformer windings,’’ *IEEE Transactions on Magnetics*, vol. 54, no. 11, pp. 1–5, 2018.
- [27] Y. Lefevre, C. Henaux, and J. F. Llibre, ‘‘Magnetic field continuity conditions in finite-element analysis,’’ *IEEE Transactions on Magnetics*, vol. 54, no. 3, pp. 1–4, 2018.
- [28] R. Ohnishi, D. Wu, T. Yamaguchi, and S. Ohnuki, ‘‘Numerical accuracy of finite-difference methods,’’ in *2018 International Symposium on Antennas and Propagation (ISAP)*, 2018, pp. 1–2.
- [29] M. Sippola and R. Sepponen, ‘‘Accurate prediction of high-frequency power-transformer losses and temperature rise,’’ *IEEE Transactions on Power Electronics*, vol. 17, no. 5, pp. 835–847, 2002.
- [30] A. S. Martyanov and N. I. Neustroyev, ‘‘Ansys maxwell software for electromagnetic field calculations,’’ *Eastern European Scientific Journal*, no. 5, 2014.
- [31] P. C. Sarker, M. R. Islam, Y. Guo, J. Zhu, and H. Y. Lu, ‘‘State-of-the-art technologies for development of high frequency transformers with advanced magnetic materials,’’ *IEEE Transactions on Applied Superconductivity*, vol. 29, no. 2, pp. 1–11, 2019.
- [32] B. Zhao, Q. Song, W. Liu, and Y. Sun, ‘‘Overview of dual-active-bridge isolated bidirectional dc–dc converter for high-frequency-link power-conversion system,’’ *IEEE Transactions on Power Electronics*, vol. 29, no. 8, pp. 4091–4106, 2014.

- [33] L. Alves, “Power transformer design - core geometry kg method,” 04 2020.
- [34] K. Venkatachalam, C. Sullivan, T. Abdallah, and H. Tacca, “Accurate prediction of ferrite core loss with nonsinusoidal waveforms using only steinmetz parameters,” in *2002 IEEE Workshop on Computers in Power Electronics, 2002. Proceedings.*, 2002, pp. 36–41.
- [35] G. Bertotti, “General properties of power losses in soft ferromagnetic materials,” *IEEE Transactions on Magnetics*, vol. 24, no. 1, pp. 621–630, 1988.
- [36] [Online]. Available: <https://www.calmont.com/wp-content/uploads/calmont-eng-wire-gauge.pdf>
- [37] [Online]. Available: <https://www.blinzinger-elektronik.de/ferrite/e-kerne>
- [38] [Online]. Available: <https://www.blinzinger-elektronik.de/ferrite/u-kerne>
- [39] O. A. Hassan, C. Klumpner, and G. Asher, “Design considerations for core material selection and operating modes for a high frequency transformer used in an isolated dc/dc converter,” in *Proceedings of the 2011 14th European Conference on Power Electronics and Applications*, 2011, pp. 1–11.
- [40] H. Zhao, H. H. Eldeeb, Y. Zhang, D. Zhang, Y. Zhan, G. Xu, and O. A. Mohammed, “An improved core loss model of ferromagnetic materials considering high-frequency and nonsinusoidal supply,” *IEEE Transactions on Industry Applications*, vol. 57, no. 4, pp. 4336–4346, 2021.
- [41] R. Sato and R. Grfissinger, “Amorphous and nanocrystalline materials for applications as hard and soft magnets,” *Indonesian Journal of Materials Science*, vol. 5, no. 1, 2003.
- [42] [Online]. Available: <https://www.ferroxcube.com/upload/media/product/file/MDS/3c94.pdf>
- [43] [Online]. Available: <https://metglas.com/wp-content/uploads/2021/06/2714A-Magnetic-Alloy-updated.pdf>
- [44] [Online]. Available: http://www.kingmagnetics.com/kingmagnetics_catalog.pdf
- [45] A. Ayachit and M. K. Kazimierczuk, “Steinmetz equation for gapped magnetic cores,” *IEEE Magnetics Letters*, vol. 7, pp. 1–4, 2016.