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A Novel Method for Load Flow Analysis of Unbalanced Three-Phase Radial Distribution Networks

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 [Keywords](#)

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Abstract: This paper presents a novel method for load flow analysis in radially operated 3-phase distribution networks without solving the well-known conventional load flow equations. The method can be applied for distribution systems in which the loads are unbalanced. As the size of matrix used is very small compared to those in conventional methods, the amount of memory used is very small, the speed is very high, and the relative speed of calculation increases with the size of the system. The method was applied to some practical networks and the results show the superiority of this method over the conventional ones. As this method is significantly faster than any other method developed to date, it has great potential for on-line operations.

Key Words: Radial load flow, distribution, three-phase load-flow

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