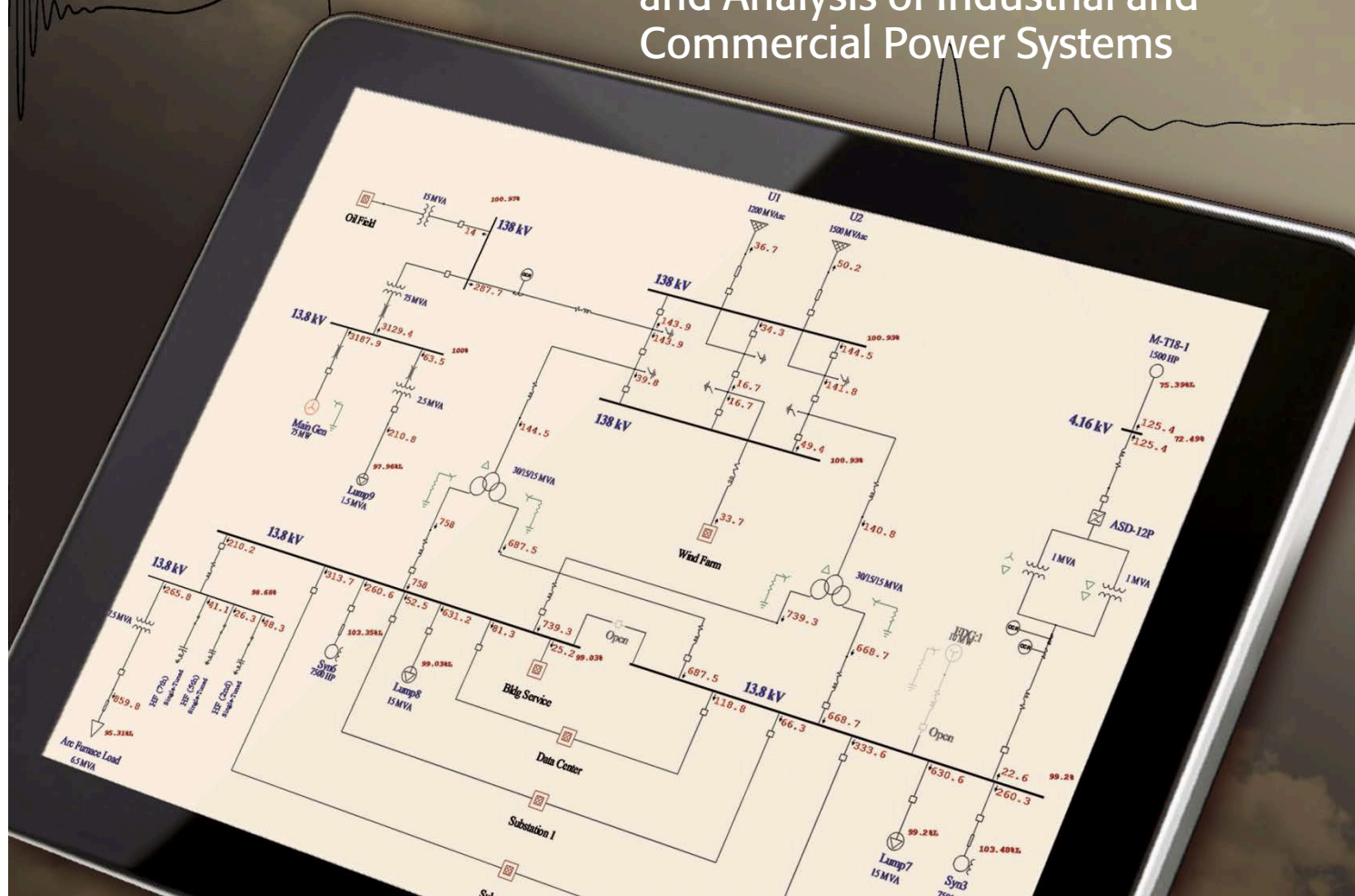


# IEEE Std 3002.2™-2018

# Recommended Practice for Conducting Load-Flow Studies and Analysis of Industrial and Commercial Power Systems



# IEEE Recommended Practice for Conducting Load-Flow Studies and Analysis of Industrial and Commercial Power Systems

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**Abstract:** Activities related to load flow analysis, including design considerations for new systems, analytical studies for existing systems, as well as operational and model validation considerations for industrial and commercial power systems are addressed. Load flow analysis includes steady-state power flow and voltage analysis along with considerations for optimal power flow calculations. The use of computer-aided analysis software, with a list of desirable capabilities recommended to conduct a modern load-flow study, is emphasized. Examples of system data requirements and result analysis techniques are presented.

**Keywords:** cable ampacity, compensation, convergence, demand factor, electrical losses, Gauss-Seidel, generation, IEEE 3002.2, impedance, industrial loads, industrial power system, load flow analysis, load-flow studies, Newton-Raphson, overload, over voltage, power demand, power factor correction, power flow, system validation, under voltage, voltage drop, voltage profile, voltage rise

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