

FUEL CELLS AS POWER QUALITY SOLUTIONS

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Fuel cell systems are advancing beyond conventional bulk power applications. New technological approaches are allowing dynamic response that can solve short-term power quality problems, specifically voltage sags and momentary interruptions. In addition to solving short-term problems, fuel cells can also provide long term back-up power, using conventional, clean natural gas fuel. This report describes the need and applications for advanced fuel cell systems in customer end-use situations. It also presents the fundamentals of fuel cell technology and how it works in power quality applications. Different configurations of fuel cell systems are discussed, along with a comparison with other technologies.