

# Review on a Power Quality Issues of a Distribution Transformer with Connected Load

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**Abstract:** In this paper a Voltage control system for power distribution which can solve the power quality problem in distribution. the proposed system consists of a frequency transformer connected to a power transformer receiving connection from both sides. this automatic connection is achieved using high or medium frequency transformers. The input of the converter is single-phase alternating current and the output is single-phase alternating current with different voltage amplitudes. the output voltage is stabilized by a closed-loop controller that controls the voltage at one level. The proposed system meets the smart distribution in terms of improved ability, protection of equipment and efficiency

**Keywords:** Distribution transformer, phase-shift modulation, ride-through system, voltage sag/swell compensation

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