

What is the normal sound level of a secondary distribution box



Article Overview

The typical sound level of a secondary distribution box, mainly determined by its transformer, ranges from 40 to 60 dB depending on kVA rating and installation conditions.

Typical Sound Levels

Secondary distribution boxes usually contain low-voltage switchgear and a power transformer. The transformer is the primary source of audible noise, generated by magnetostrictive vibrations in the core and electromagnetic forces in the windings. For small distribution transformers (e.g., 15-50 kVA), the sound level is typically around 50 dB, while larger transformers may reach 55-60 dB under full load conditions (IEC 60076-10) . The perceived loudness depends on the ambient environment. For example, a 50 dB transformer in a factory with 85 dB ambient noise is inaudible, but the same transformer in a quiet residential area (ambient ~30 dB) may be noticeable and considered objectionable .

Measurement Standards

Sound levels are measured according to IEC 60076-10, which defines methods for determining sound power and sound pressure of transformers and reactors. Measurements are typically made at the factory under controlled conditions, using A-weighted decibels (dBA) to reflect human ear sensitivity

Article Content

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Record the sound level meter make, model, and serial number; measured sound pressure levels for each microphone location;

Average sound level in Connections CAUTION: Care must be taken

here represent average values obtained in a sound laboratory per industry standard test procedures. Decibel values obtained in field

Specification of Sound Levels for Transformers and Reactors

A significant concern for power fi transformers and reactors is the audible sound emitted into the surrounding areas, affecting both the

Common Noise Levels

common noise levels - how loud is too loud? Continued exposure to noise above 70 dBA (adjusted decibels) over time will cause

H V A C O U S T I C A L A P P L I C A T I O N G U I D E L I N E S

Sound Power Level (Lw) values for Air Terminal devices are usually reported as the sound power level in each of several octave

SECTION 9: ELECTRICAL POWER DISTRIBUTION

3 The Electrical Grid Three main components to the electrical grid Generation ESE 450 Transmission Transmission Subtransmission

Distribution board

A distribution board (also known as panelboard, circuit breaker panel, breaker panel, circuit breaker, electric panel, fuse box or DB

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The usual metric is either Lmax (maximum noise level over a period) or Leq (average noise level over a period). The time constant

Transformer Noise Level Chart by kVA: NEMA Standards Explained

This guide gives you the complete transformer noise level chart by kVA, explains why transformer sound increases with capacity,

What Is Secondary Distribution Voltage?

Secondary distribution voltage represents the final stage of electricity delivery, marking the point where high-voltage power is

Understanding VAV Sound Standards

Then, the NC-level is computed using the sound pressure and published for both discharge and radiated sound. The result is two

Contact Us

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