FENECON Industrial XL
Sound Protection Information

Rev. 03 -- 10.2025

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1. Description

In order to determine which noise emissions are emitted by a FENECON Industrial XL, a sound intensity measurement was commissioned in accordance with DIN EN ISO 9614-2:1996.

2. Structure of the test procedure

DIN EN ISO 9614-2 Determination of sound power levels of noise sources using sound intensity measurements; Part 2: Measurement with continuous scanning (ISO 9614-2:1996); German version EN ISO 9614-2:1996 was applied for the expert opinion.

The measurement was carried out on continuous measurement paths on the measurement area, which was divided into several segments in order to be able to determine the different noise levels in the different directions. The fans of the inverters and the cooler of the battery energy storage system were manually controlled by FENECON GmbH and operated at full load.

The sound level meter used complies with the requirements of the DIN EN 61672 accuracy class 1 standard and was tested with a calibrator before and after the measurement. No unacceptable deviations were found.

A tonality could not be perceived subjectively. The accuracy of measurements according to DIN EN ISO 9614-2 (accuracy class 2) is 1.5 dB as a comparative standard deviation.

3. Measurement and calculation results

The result for the electrical energy storage system at full load is an average sound pressure level on the measurement surface of L_{Aeq} = 73.7 dB(A).

Due to the asymmetrical system design, the sound pressure level is not the same in all directions. If there is a sensitive immission location, it is recommended to turn the inverter side away from the immission location in order to reduce the noise exposure. The sound pressure level at a distance of 1 m and 5 m around the device is as follows:

3. Measurement and calculation results