

Foreword

The network frequency is an important quantity for robust control and fault detection in electrical networks. However, in rapidly changing (transient) network conditions, the network frequency is usually not clearly definable and a compromise has to be found between a very accurate and a very fast measurement.

This FNN Note describes the relationships between measurement duration and measurement accuracy according to the current state of knowledge and provides an overview of different measurement methods and their use cases. The focus is mainly on grid protection and the Note is consequently addressed to grid operators, manufacturers and users. It replaces Version 1 of the FNN Note "Determination and evaluation of the power frequency - effects of line-side disturbances" from 2017. The chapters have been reorganised according to functions and ranges of application and expanded thematically.

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