

CERTIFICATE

Certificate-ID: C-09-2020-21250307

Certificate for: Audited energy data management system

Certificate holder:

SIEMENS

Siemens AG
Gleiwitzer Str. 555
90475 Nuremberg
Germany

Test report: B-09-2020-21250307

Components: SIMATIC Energy Manager PRO
SIMATIC Energy Manager Basic
SIMATIC Energy Suite & WinCC Professional
SIMATIC S7 EE-Monitor S7-1500/1200
SIMATIC Energy Meter
Energy Analytics

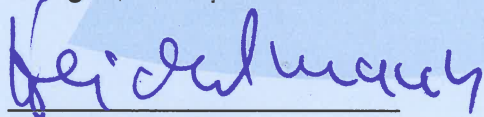
Basis of certification: Audited energy data management system in accordance with the catalogue of requirements Version 3.0 (as of 03/2018)

Scope of certification: Document and system review of functionalities for use with energy management systems in accordance with ISO 50001 et al., energy audits in accordance with ISO 50002 and the environmental evaluation of machine tools in accordance with ISO 14955-2

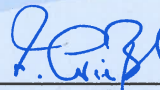
It is herewith confirmed that the functionalities and characteristics of the components described in the test report B-09-2020-21250307 as well as in the appendix I to the certificate, have been verified within the framework of a document and system review. The components verifiably support compliance with the requirements of the chapters of the standards ISO 50001 et al., ISO 50002 and ISO 14955-2 as listed in the appendix to the certificate.

This certificate is valid until 30 September 2022.

Cologne, 10 September 2020



Norbert Heidelmann
TÜV Rheinland Energy GmbH
Energy and Carbon Services



Florian Grießl
TÜV Rheinland Energy GmbH
Energy and Carbon Services



Energy Data
Management
System
Regular
Surveillance

www.tuv.com
ID 0000049036

Appendix I to Certificate No. C-09-2020-21250307

Certification Procedure Audited Energy Data Management System

Siemens AG
Gleiwitzer Str. 555
90475 Nuremberg
Germany



The following characteristics and functionalities of the components as stated in the certificate were verified within the framework of the auditing:

- Determination of customised business key figures (EnPIs)
- Performance of dependency and regression analyses
- Prices can be stored for determination of costs
- The software is compatible with standard communication interfaces and data transfer technology for the import of the measurement data recorded
- Various types of diagrams and depictions of energy consumption can be selected
- Time-controlled and event-controlled reports can be drawn up automatically
- CO₂-balances can be drawn up automatically
- The contents of the automatic reports can be customised
- Report are generated in established, common formats
- Customised threshold values can be specified for an early warning system
- The software is set-up according to the PDCA-cycle or supports implementation thereof
- Access rights can be customised for each user
- The system can be operated intuitively and is user-friendly
- Determination of relevant variables for energy-related performance
- Determination of static factors for energy-related performance
- Management and documentation of measures to improve energy performance

The components verifiably support compliance with the requirements of the following chapters of the standard ISO 50001:

- 6.2 Objectives, energy targets and planning to achieve them
- 6.3 a), b), c) Energy review
- 6.4 Energy performance indicators
- 6.5 Energy baseline
- 6.6 Planning for collection of energy data
- 9.1 Monitoring, measurement, analysis and evaluation of energy performance and the EnMS
- 9.3 c), d) Management review

The components SIMATIC Energy Manager PRO and Energy Analytics verifiably support compliance with the requirements of the following chapters of the standard ISO 50006:

- 4.2.4 Defining and quantifying relevant variables
- 4.2.5 Defining and quantifying static factors
- 4.3.3 Determining the specific energy performance characteristics to be quantified

The components SIMATIC Energy Manager PRO and Energy Analytics verifiably support compliance with the requirements of the following chapters of the standard ISO 50015:

- 5.3 Energy performance improvement actions

Furthermore, the components verifiably support compliance with the requirements of the following chapters of the standard ISO 50002:

- 5.4 Data collection
- 5.7 Analysis
- 5.8.2 Report

The components SIMATIC Energy Efficiency Monitor and SIMATIC Energy Manager PRO additionally support compliance with the requirements of the standard ISO 14955-2 for the environmental evaluation of machine tools.