PRODUCT CONFORMITY CERTIFICATE

This is to certify that the

CEM-DAS / DAA Software

Manufactured by:

ABB Automation GmbH

Stierstädter Strasse 5
60488 Frankfurt am Main
Germany

has been assessed by Sira Certification Service
and for the conditions stated on this certificate complies with:

**MCERTS Performance Standards and Test Procedures for
Environmental Data Management Software, Version 3, (November 2015)
in respect of:**

Part A – Generic Software Quality
Part B – Data Management General Aspects
Part C1 – CEMS data management applications – Generic Requirements
Part C2 – CEMS Data Management Applications - EN14181
Requirements

Project No.	:	70109530
Certificate No	:	Sira MC170323/00
Initial Certification	:	06 March 2017
This Certificate issued	:	06 March 2017
Renewal Date	:	05 March 2022

Joe Prince MSc, MInst MC
Certification Manager

MCERTS is operated on behalf of the Environment Agency by

Sira Certification Service

Unit 6, Hawarden Industrial Park
Hawarden, Deeside, CH5 3US
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The MCERTS certificate consists of this document in its entirety.
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Approved Site Application

Any potential user of the certified software should:

1) Ensure that it is suitable for the platform on which it will be installed (if necessary in consultation with the software producer)

2) Ensure that the selection and operation of the software is appropriate to the application

Basis of Certification

This certification is based on the following Test Report(s) and on Sira's assessment and ongoing surveillance of the product and the manufacturing process:

Sira report ref: R70047743 v1.0 ABB GmbH CEM-DAS / DAA Software, dated 21 January 2017

Product Certified

Product	Version	Function	Host
CEM-DAS	1.2.3	Data management and user interfaces	Server
DAA	1.2 (003)	Data acquisition	Client

Later minor changes to the certified version are permitted in accordance with the conditions of the standard.

Software Modifications

In the event of a major release the developer shall provide brief supporting evidence to the Certification Body who will advise whether recertification is necessary.

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Certified Performance

The application is able to perform the following tasks:

- Acquires signals with a sampling rate of ≤5 s, without artificially limiting the number of signals
- Supports the transfer of the signals both as analog current in the range of 0 to 24 mA as well as standard digital Interfaces (Modbus - including VDI 4201 Part 3, Profibus, OPC)
- Calculates defined averages according to regulatory requirements
- Standardizes, validates, rounds and performs limit monitoring according to regulatory requirements
- Generation of event-driven messages that can be commented and automatically sent (e.g. via e-mail)
- Stores all data for an adjustable amount of time in a relational database and comes with a standardized interface allowing customized operator reporting
- Web base user interface allows direct access of current, historical and forecast data, both in the form of dynamic graphs (bar / line) and reports (pdf / csv / txt)
- The lists and protocols (daily, monthly and yearly) can be read out, either manually or automatically as pdf or txt files, or as comma-separated files for further processing with a spreadsheet software
- Automatic or manual QAL3 measurements for the zero and reference points and creation of EN14181 compliant CUSUM reports (PDF format)
- Calculation of total annual CO_2 emissions according to EU regulation 601/2012
- Inspection mode to better assist QAL2 and AST related activities
- Backend architecture that fully supports live redundancy (master/backup system)

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Description

CEM-DAS / DAA Software is a fully featured system for the continuous acquisition, storage, evaluation, monitoring and reporting of emissions data. It is designed for all applicable industry branches with the aim of providing the operators with critical information to allow both environmentally conscious and cost effective plant operation. In addition, the system is designed to be remotely serviced to minimize operational maintenance cost.

The system is both MCERTS and EN 15267 certified. It fulfils the requirements of IED 2010/75/EU as well as the standard European EN 14181 in addition to current German guidelines and other national regulatory requirements.

The system combines **DAA Software**, a distributed data acquisition and processing system, with **CEM-DAS**, a flexible central management, storage, evaluation, monitoring and reporting system. Providing the benefits of reliable local on-site data acquisition with the ease of unified central configuration management and data analysis/reporting.

The **DAA Software** is based on a robust compact modular design that offers great flexibility and scalability, allowing it to be cost effective on all applications scales, covering everything from simple single application plants to entire industrial complexes. Each **DAA Software** system performs all required calculations independently of the **CEM-DAS**, allowing each to interface with (and provide to) the operators control system all values, from raw input to fully transformed, calibrated, standardized and validated regulatory compliant measurements and forecasts. In addition to the standard analog 0-24mA current signals the **DAA Software** also fully supports a wide variety of standard digital interfaces, including Modbus, Profibus, OPC and others for both input and output. The **DAA Software** module and **CEM-DAS** interconnectivity is based on standard Ethernet networking.

The **CEM-DAS** checks incoming data against mandatory limit values and automatically initiates event based messages, emails or submits agency reports. It can also print or email daily, monthly and annual reports automatically at scheduled intervals.

The **CEM-DAS** also provides a comprehensive web based graphical user interface which allows clients straightforward access to the configuration and the resulting data, both live and historic, either as graphs, official reports (PDF/TXT), lists or file exports (CSV). Configuration revision change management and reports ensure full transparency of any configuration changes.

The flexibility of the centrally managed configuration allows the system to readily meet current and future regulatory requirements as well as operator specific requirements.

All data is stored redundantly and according to regulatory requirements. The data is archived for at least 5 years and is backed up daily. The data is also exposed through a standardized read-only database interface to allow the operator even further analysis and reporting possibilities (via PI, etc).

The **CEM-DAS** also supports a fully redundant Master/Backup operation to ensure reliable accessibility at any time. The whole system is designed to be robust and reliable yet still flexible, efficient and effective.

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General Notes

1. This certificate is based upon the equipment tested. The Manufacturer is responsible for ensuring that on-going production complies with the standard(s) and performance criteria defined in this Certificate. The Manufacturer is required to maintain an approved quality management system controlling the manufacture of the certified product. Both the product and the quality management system shall be subject to regular surveillance according to 'Regulations Applicable to the Holders of Sira Certificates'. The design of the product certified is defined in the Sira Design Schedule V00 for certificate No. Sira MC170322/00

2. If certified product is found not to comply, Sira Certification Service should be notified immediately at the address shown on this certificate.

3. The Certification Marks that can be applied to the product or used in publicity material are defined in 'Regulations Applicable to the Holders of Sira Certificates'.

4. This document remains the property of Sira and shall be returned when requested by the company.

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