

## Product specific information for SIDRIVE IQ - Drive System Analyzer and Drive System Connect (Service Description and Specific Terms)

### 1 General information

#### 1.1 Online support

In the "Product Support" area of the "Siemens Industry Online Support" website (<https://support.automation.siemens.com>), Siemens shall provide information and downloads for the products and systems listed there.

These include, for example:

- Answers to frequently asked questions (FAQs)
- Latest product information
- Technical data, CAx data and compatibility statements (where available)
- Updates/upgrades, service packs and support tools for downloading (mostly free of charge)
- Manuals and operating instructions for downloading as PDF files
- Approvals, certifications, inspection documents, and characteristic curves
- Subscription to information on selected topics via the "Newsletter"
- Web-based access to technical support via "Support Requests"

In addition, the "Applications & Tools" area offers effective, generally applicable solutions for sample tasks.

With the "Technical Forum", Siemens offers a platform via which users can share their experiences of products or systems and benefit from other users' knowledge.

The online support is governed by the latest version of the terms of use for the web pages provided by Siemens. These can be viewed via the following link:

<http://www.siemens.com/corp/de/index/nutzungsbedingungen.htm>

#### 1.2 Technical support (Basic)

Siemens is available to the customer during normal local working hours in the respective time zones around the world for product-related queries (preferably via an Internet support request) regarding the function and handling of almost all Siemens Industry products and systems.

In Germany, the normal local working hours are Monday – Friday 8.00 a.m. to 5.00 p.m., except on Germany-wide and local holidays. Support shall be provided by telephone, email or fax unless it is expressly stated that support shall be provided via remote access.

The latest provisions and regulations governing the scope of the support services are available at:

<https://support.automation.siemens.com/WW/lisapi.dll?func=cslib.csinfo&no-deid1=81719791&lang=de&siteid=csius&aktprim=1&extranet=standard&viereg=WW&objid=16605032&treeLang=de>

Basic support is available to you free of charge up to a maximum processing time of one hour. You can also purchase chargeable service packages to ensure that your support requests are processed more quickly or to obtain support for more complex problems. Please ask your Siemens contact which services are available in your Region.

The contact details for technical support in other countries are available in the Siemens contacts database:

[http://www.automation.siemens.com/aspa\\_app/contactmenu.aspx?ci=yes&lang=de&regid=WW&comptcid=0](http://www.automation.siemens.com/aspa_app/contactmenu.aspx?ci=yes&lang=de&regid=WW&comptcid=0)

The technical support experts in Germany can be contacted via the following telephone number: +49 (911) 895-7222

All other service inquiries should be directed to the regional technical control centers.

### 2 Service description and particular conditions

The following modules are available in version 1.3:

- **Drive System Connect**
- **SIDRIVE IQ - Drive System Analyzer**
- **SIDRIVE IQ - Drive System Analyzer Options**

#### 2.1 Service Element: Drive System Connect

In version 1.3, the service is available for the following products:

- **SINAMICS Perfect Harmony GH 150 and GH180**
- **SINAMICS SL150, GL150, GM150, SM120 and SM150**
- **Motors with roller bearings**
- **Motors with sleeve bearings**

#### 2.1.1 Service Element: Drive System Connect

##### Description of services:

The "Drive System Connect" module comprises the activities connected with setting up the data communication between the Service Objects (e.g. motor, drive) and the data infrastructure in the Siemens Data Center.

The module includes the following:

- Supply of a Siemens industrial PC, including installation and configuration documentation, but without instrumentation for the stated hardware (sensor mechanisms, SIPLUS modules, etc.).
- Pre-installed and tested Drive Train Analytics software image.
- Standard preconfigured Data Collector.
- Preconfigured X-Tools installation (only with the "Drive System Connect Micro" and "Drive System Connect Rack" versions)

Scope of delivery of the various Drive System Connect modules:

##### **Drive System Connect Nano**

- Ready-to-install SIMATIC IPC327E including installation and configuration documentation. Pre-installed and configurable.
- Pre-installed and tested Drive Train Analytics software image, including Agent Software, Data Collector, cRSP SSL Client and McAfee Whitelisting.
- Standard preconfigured Data Collector.

##### **Drive System Connect Micro**

- Ready-to-install SIMATIC IPC427E including installation and configuration documentation. Pre-installed and configurable.
- Pre-installed and tested Drive Train Analytics software image, including Agent Software, Data Collector, cRSP SSL Client and McAfee Whitelisting.
- Standard preconfigured Data Collector.
- Preconfigured X-Tools installation.

##### **Drive System Connect Rack**

- Ready to install IPC647D including installation and configuration documentation. Pre-installed and configurable.
- Pre-installed and tested Drive Train Analytics software image, including Agent Software, Data Collector, cRSP SSL Client and McAfee Whitelisting.
- Standard preconfigured Data Collector.
- Preconfigured X-Tools installation.

#### 2.2 Service Element: SIDRIVE IQ - Drive System Analyzer

In version 1.3, the service is available for the following products:

- **SINAMICS Perfect Harmony GH150 and GH180**
- **SINAMICS SL150, GL150, GM150, SM120 and SM150**
- **Motors with roller bearings**
- **Motors with sleeve bearings**

#### 2.2.1 Service Element: SIDRIVE IQ - Drive System Analyzer

##### Brief description:

The SIDRIVE IQ - Drive System Analyzer has a dataflow and workflow with which it offers the customer support for the Service Objects, connected via a SIDRIVE IQ - Drive System Connect module.

The SIDRIVE IQ - Drive System Analyzer includes the following work packages:

- Automated receipt of the operating parameters of the Service Objects (e.g. motor, drive) transmitted by the customer.
- Protected data management and data administration in the Siemens data center.
- Regular automated (monthly) reports about the approved and connected Service Objects.
- Notification of change to the recorded parameters or the communication setup.

##### Description of services:

The data transmitted by the customer is fed to an automated data processing and analysis process, for detecting any conformity errors from the normal operating state of the Service Object. If such nonconformant behavior is observed, a notification by email is triggered.

SIDRIVE IQ - Drive System Analyzers are online applications, which run in an appropriate runtime environment (SIDRIVE IQ - Drive System Analyzer Access). No software is supplied.

Scope of delivery of the SIDRIVE IQ - Drive System Analyzer modules:

- On-boarding of the approved Service Object and configuration of the corresponding Drive System Connect modul by remote access.
- Automated collection, processing and storage of operating data, transmitted by the customer to Siemens.
- Access to the web-based SIDRIVE IQ - Drive System Analyzer Access for up to five customers/users:
  - 1.) General overview of the basic Service Object
  - 2.) Service Object specific views:
    - General overview: Statistics regarding the state of health, operating efficiency, maintenance effectivity
    - Chart overview: Graphical representation and curves of individual data points and reference values (time series, spectra)
    - Report view: Access to and download of automatically generated monthly reports in PDF format.
    - Log view: Overview of past events (status, alarms, faults)
    - Info view: Service Object (type plate) and Siemens contact person information

The contents and scope of views may vary depending on which Service Objects are connected and which SIDRIVE IQ - Drive System Analyzer modules are selected.

- Operation of the data service application, including the IT infrastructure, application management, data quality management, and software updates and maintenance for Drive System Connect modules.
- General user support and administration

The following SIDRIVE IQ - Drive System Analyzers are available:

**SIDRIVE IQ - Drive System Analyzers for the following MV drives:**

- **SINAMICS Perfect Harmony GH150**
- **SINAMICS Perfect Harmony GH180**
- **SINAMICS SL150**
- **SINAMICS GL150**
- **SINAMICS GM150**
- **SINAMICS SM120**
- **SINAMICS SM150**

**SIDRIVE IQ - Drive System Analyzers for motors:**

- **Motors with roller bearings**
- **Motors with sleeve bearings**

Special conditions:

The term of the agreement for the SIDRIVE IQ - Drive System Analyzer module is initially set at one year.

A first-time customer access to the data requires successful completion of the 'site acceptance test', and then becomes available three working days later at the earliest.

This service is performed exclusively for the ordered and described Service Objects in the agreement.

Prerequisite for using the SIDRIVE IQ - Drive System Analyzer is the corresponding Drive System Connect module.

During online monitoring, the customer may not direct or indirectly impede the state of the installation (for example in the event of voltage failure, removal of connection cable, switching off instruments or switching off Service Objects)

At the earliest, the first automated report becomes available as from the 3rd working day after the end of a complete month in which the data was submitted by the customer.

**2.2.2 Service Element: SIDRIVE IQ - Drive System Analyzer Options**

Brief description:

SIDRIVE IQ - Drive System Analyzer Options extend the existing scope of services of the SIDRIVE IQ - Drive System Analyzer, but can also be used as a stand-alone in individual cases. The extension of the scope of services includes a dataflow and workflow with which it offers the customer support for the connected Service Objects.

SIDRIVE IQ - Drive System Analyzer Options include the following work packages:

- Automated receipt of the operating parameters of the Service Objects (e.g. motor, drive) transmitted by the customer.
- Protected data management and data administration in the Siemens Data Center.
- Regular automated reports about the approved and connected Service Objects.
- Notification of change to the received parameters or the communication setup.

Description of services:

SIDRIVE IQ - Drive System Analyzer Options are online applications, which run in an appropriate runtime environment (SIDRIVE IQ - Drive System Analyzer). No software is supplied.

Scope of delivery of the various SIDRIVE IQ - Drive System Analyzer modules:

- On-boarding of the approved Service Object and configuration of the corresponding Drive System Connect module by remote access.
- Automated collection, processing and storage of from the customer transmitted operating parameters from a local Drive System Connect module.
- Expansion of the web-based SIDRIVE IQ - Drive System Analyzer with operationally related, Service Object-related statistical data and KPIs:
  - Chart overview: Increase in the number of data points for graphical representation and representation of curves.
  - Report view: Expansion and integration of data points in automatically generated monthly reports.
  - Log view: Expansion and integration of data points in past events (status, alarms, faults)
- Operation of the data service application, including the IT infrastructure, application management, data quality management, and software updates and maintenance for Drive System Connect modules.

The following SIDRIVE IQ - Drive System Analyzer Options are available:

**SIDRIVE IQ - Drive System Analyzer Options**

**for process data (PLC)**

- Acceptance and visualization of process data from the higher-level PLC/DCS.
- Suitable for up to 20 measured signals.
- Extended automated report.

**for cooling systems (motors)**

- Acceptance and visualization of data of the cooling system of the connected motor.
- Extended automated report.

**for oil lubrication systems (motors)**

- Acceptance and visualization of data of the oil lubrication system of motors with sleeve bearings.
- Extended automated report.

**for shaft misalignment (motors)**

- Acceptance and visualization of data about the possible misalignment of the shaft of the connected motor.
- Extended automated report.

**for partial discharge measurement (only HV motors)**

- Acceptance and visualization of the measurement data of the partial discharge of the connected HV motor.
- Extended automated report.

**for OA trace data (drives)**

- Acceptance and visualization of OA trace data of the connected drive.
- Extended automated report.

Special conditions:

The term of the agreement for a SIDRIVE IQ - Drive System Analyzer option is initially set at one year. The data becomes accessible to the customer from the 1st of the following month after receipt of the order, but with a delivery time of at least three working days.

This service is performed exclusively for the ordered and described Service Objects in the agreement.

Prerequisite for using the SIDRIVE IQ - Drive System Analyzer is the corresponding Drive System Connect module.

Prerequisite is a live connection between the Drive System Connect module (customer plant) and the Internet (WWW) via a broadband Internet connection (at least DSL).

During online monitoring, the customer may not directly or indirectly impede the state of the installation (for example in the event of voltage failure, removal of connection cable, switching off instruments or switching off Service Objects)

The automated report becomes available as from the 3rd working day after the end of the previous month at the earliest.

### 2.3 Customer's specific duties of cooperation:

In order to maintain a high level of availability of the installed measuring devices, of the system for data collection and processing, and of the continuous data transmission the customer shall perform or ensure the following, additional steps at the customer's own expense:

- An uninterruptible power supply to the system components shall be ensured.
- Only skilled (trained) personnel may modify settings or make adjustments or changes to the software.
- Only software approved by Siemens may be installed on the IPC (Drive System Connect modules).
- Virus scanners and other security software installed in the customer infrastructure shall always be the latest versions. The network and hardware shall also be scanned regularly.
- Firewalls shall be used between the infrastructure in the environment of the SIDRIVE IQ – Drive System Connect module.
- The password shall be used with particular care.

The customer shall also:

- Notify Siemens without delay of such important configuration changes to the system/machine that are not connected with normal operation of the machine, and which affect the Drive Train Analytics services. For example, changes to the hardware during maintenance work/retrofitting, structural changes to integrated, secondary data systems.
- Notify Siemens without delay of any damage to the monitoring solution (e.g. damage to IPC sensors, I/O devices)
- Ensure that the hardware used for monitoring is used in accordance with the operating instructions, and that maintenance and servicing is performed by Siemens and/or the manufacturer
- Ensure that the hardware and/or software used for monitoring is not changed without the prior agreement of Siemens
- Provide an Internet connection (at least DSL) and transmit the data at own risk and cost from the customer's system to the expert center that Siemens uses to perform the service.
- Enable remote or direct access to the system, to the measuring devices and to communication interfaces (DCS, PLC) during mobilization.
- Name an appropriately qualified contact person, who shall provide Siemens with the necessary information about the machine(s) and the plant.

#### System requirements:

The connected Service Object (e.g. motor, drive) must be equipped with the corresponding measuring device and associated sensing mechanisms. The associated Drive System Connect module shall also be connected.

#### Miscellaneous

Siemens will perform the offered services on the basis of the data available in the Siemens Cloud. SIEMENS implements high data quality management standards. However short-term data losses may occur (e.g. operator error, data transmission – ISDN – dropouts, local break in connectivity, etc.). Siemens shall not be liable for implicit or direct consequences of such data losses.

The reports produced remain available for a period of six months. The customer is responsible for backing up these reports.

#### General System Requirements:

The following standard web browsers have been tested for customer access to the Drive Train Analytics website:

- Google Chrome
- Internet Explorer (as from version 11)

Mobile tablet:

- Safari as from version 9.0.3

SIDRIVE IQ Drive Train Analytics 1.3 SP2