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SIRIUS

Industrial Controls

Catalog
IC 10

Edition
2018

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Related catalogs

Industrial Controls IC 10 AO
SIRIUS Classic

PDF (E86060-K1010-A191-A5-7600)



Industrial Communication IK PI
SIMATIC NET

E86060-K6710-A101-B8-7600



SIMATIC ST 70
Products for
Totally Integrated Automation

E86060-K4670-A101-B6-7600



**Low-Voltage Power Distribution and
Electrical Installation Technology** LV 10
SENTRON • SIVACON • ALPHA
Protection, Switching, Measuring and Monitoring
Devices, Switchboards and Distribution Systems
PDF (E86060-K8280-A101-A4-7600)
Print (E86060-K8280-A101-A3-7600)

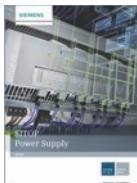


SIMOTICS GP, SD, XP, DP D 81.1
Low-Voltage Motors
Type series 1FP1, 1LE1, 1MB1 and 1PC1
Frame sizes 71 to 315
Power range 0.09 to 200 kW
E86060-K5581-A111-A9-7600



SITOP KT 10.1
Power supply
SITOP

E86060-K2410-A101-B2-7600



SITRAIN
Training for Industry

www.siemens.com/sitrain



Miscellaneous

Products for Automation and Drives CA 01
Interactive Catalog
DVD

E86060-D4001-A510-D7-7600



Industry Mall
Information and Ordering Platform
on the Internet:

www.siemens.com/industrymall



TIA Selection Tool
for the selection, configuration and ordering of
TIA products and devices

www.siemens.com/tst



Information and Download Center
Digital versions of the catalogs are available
in the Internet

www.siemens.com/sirius/catalogs



Contact
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Contacts Database at:

www.siemens.com/automation-contact



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Technical Assistance

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E-Mail: technical-assistance@siemens.com



Industrial Controls

SIRIUS



Catalog IC 10 · 2018

Supersedes:

Catalog IC 10 · 2017

Catalog Abridged IC 10 A · 03/2017 ET 200SP motor starters

Catalog Abridged IC 10 A · 04/2017 SIMOCODE pro 3UF7

Motor Management and Control Devices

Refer to the Industry Mall for current updates of this catalog:

www.siemens.com/industrymall

The products contained in this catalog can also be found in the Interactive Catalog CA 01.

Article No.: E86060-D4001-A510-D8-7600.

Please contact your local Siemens branch.

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2 Industrial Communication



3 Switching Devices – Contactors and Contactor Assemblies – for Switching Motors



4 Switching Devices – Contactors and Contactor Assemblies – Special Applications



5 Switching Devices – Contactors and Contactor Assemblies – Contactor Relays and Relays



6 Switching Devices – Soft Starters and Solid-State Switching Devices



7 Protection Equipment



8 Load Feeders and Motor Starters for Use in the Control Cabinet



9 Motor Starters for Use in the Field, High Degree of Protection



10 Monitoring and Control Devices



11 Safety Technology



12 Position and safety switches



13 Commanding and Signaling Devices



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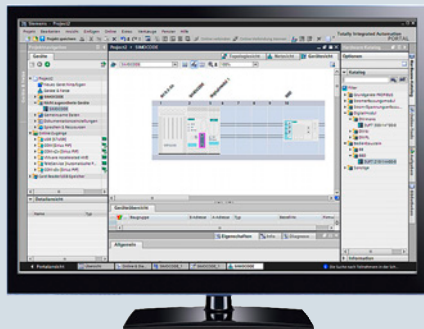


15 Power Supply



16 Appendix

Parameterization, Configuration and Visualization with SIRIUS

**Price groups**

PG 346, 42B, 42C, 42D, 42H, 42J

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Click on the Article No. in the catalog PDF to access it in the Industry Mall and get all related information.

Article No.

3RA1943-2C
3RA1943-2B
3RA1953-2B
3RA1953-2N



ICD1_09453

Or directly in the Internet, e. g.
www.siemens.com/product?3RA1943-2C

Parameterization, Configuration and Visualization with SIRIUS

Introduction

Overview

More information

Homepage, see www.siemens.com/sirius-engineering
 Industry Mall, see www.siemens.com/product?3ZS1

Engineering software



SIRIUS ES engineering software (E-SW)

Intuitive, efficient and future-oriented – the engineering programs in the SIRIUS ES software family

The programs of the SIRIUS ES software family enable:

- **Intuitive engineering from the word go**
 The SIRIUS ES programs enable you to focus on your engineering task. Thanks to the intuitive layout and simple navigation, a clearly arranged configuring of device functions and their parameters is possible – online and offline. The task- and user-oriented portal views as well as the flexible screen layout, the uniform look and feel for all program editors and finally the graphic network and device configuration all provide support.
- **Efficient parameterization for fast success**
 Faster startup is achieved by using local and global libraries. The joint hardware configuration for all components in the application also assists in the efficient parameterization and simple networking of system components. Not least, integrated system diagnostics offers fast troubleshooting and efficient fault analysis, thus making it possible to shorten startup times even further and to minimize production downtimes.
- **Future-oriented basis for innovative results**
 All future product developments are seamlessly integrated into the TIA Portal. Investments made up to now are still safe tomorrow. To harmonize engineering in all performance classes, the SIRIUS ES programs in TIA Portal are scalable and upwardly compatible. In the event of an upgrade, existing projects can easily be transferred and integrated into the next product level. Even existing SIRIUS ES projects in version 2007 can easily be migrated to the TIA Portal software version.

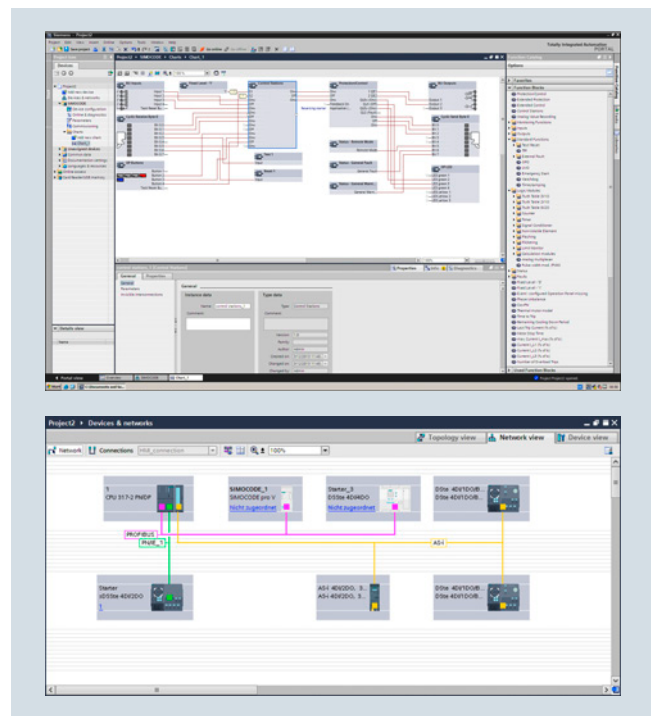
The next generation of SIRIUS ES programs, such as SIMOCODE ES V14 or SIRIUS Soft Starter ES V14, is based on the central engineering framework Totally Integrated Automation Portal (TIA Portal), which provides users with a consistent, efficient and intuitive solution for all automation tasks. Thus, the TIA Portal is also the integrated working environment for the programs in the SIRIUS software family. The same operator control concept, the elimination of interfaces and a high degree of user-friendliness make it possible to quickly integrate SIRIUS devices into an automation process and start them up with the TIA Portal.

The SIRIUS ES programs such as Motor Starter ES, Soft Starter ES, Safety ES and SIMOCODE ES are available in three versions, which differ in terms of user-friendliness, scope of functions and price:

- **Basic**
 The basic variant contains all basic functions that are needed to parameterize devices. These include both parameterization functions and also operator control, diagnostics and test functions.
- **Standard**
 The standard variant contains the basic functionality plus standard functions. The standard functions include parameterization with the aid of integrated graphic editors, creation of typicals, parameter export, analog value recording and parameter comparison.
- **Premium**
 The premium variants contain the complete functionality of the software packages. Besides the standard functionality, this includes communication functions such as access via PROFIBUS/PROFINET and S7 routing.

Note:

The scope of functions depends on the SIRIUS ES program, see [the individual product description for details](#).



Efficient engineering and startup with graphic user interfaces and simple network and device configuration

Types of delivery and licenses

The programs of the SIRIUS ES software family are available in the following delivery types:

- Floating license – the license for any one user at any one time
 - Authorizes any one user
 - Independent of the number of installations (unlike the single license which is allowed to be installed once only)
 - Only the actual use of the program has to be licensed
- Combo license – license for parallel use
 - Licensed parallel use of the TIA Portal version and SIRIUS ES version 2007
 - For all other properties such as floating license
- Trial License (free use of all program functions for 14/21 days for testing and evaluation purposes, included on every product CD/DVD, available in the download file of the SIRIUS ES program in the Service&Support portal).

The following delivery versions are also available for a number of programs of the SIRIUS ES software family:

- Upgrade
Switching from an old to a new version with expanded functions, e.g. upgrade from SIMOCODE ES 2007 to SIMOCODE ES V14.
- Software Update Service
To keep you up to date at all times we offer a special service which automatically supplies you with all the service packs and upgrades within the SIRIUS ES (TIA Portal) range of programs.
- License/software download
Simply download your new software and license key from the Internet via the Online Software Delivery (OSD) platform. After you have placed your order in our mall, you will receive your access data by email, which will allow you to immediately download the license or software you have ordered. More information, [see](#) www.siemens.com/tia-online-software-delivery.

Article number scheme for the engineering software

Product versions		Article number																		
SIRIUS engineering software		3	Z	S	1	-	□	□	□	□	□	-	□	□	□	□				
Software type	e.g. 3 = parameterization software	□																		
Package designation 1	e.g. 1 = SIRIUS Engineering	□																		
Package designation 2	e.g. 3 = Soft Starter ES		□																	
Package designation 3	e.g. 4 = Basic			□																
Hardware, operating system	e.g. C = Windows 32/64				□															
Data carriers	e.g. C = CD-ROM					□														
Serial number	e.g. 1						□													
Function status	e.g. 0							□												
Product category	e.g. 0 = normal product												□							
Language	e.g. Y = multilingual													□						
Delivery versions	e.g. A = basic product with program on data medium and license														□					
License type	e.g. 5 = single license															□				
Example		3	Z	S	1	-	3	1	3	-	4	C	C	1	0	-	0	Y	A	5

Note:

The Article No. scheme shows an overview of product versions for better understanding of the logic behind the article numbers.

For your orders, please use the article numbers quoted in the selection and ordering data.

Notes on security:

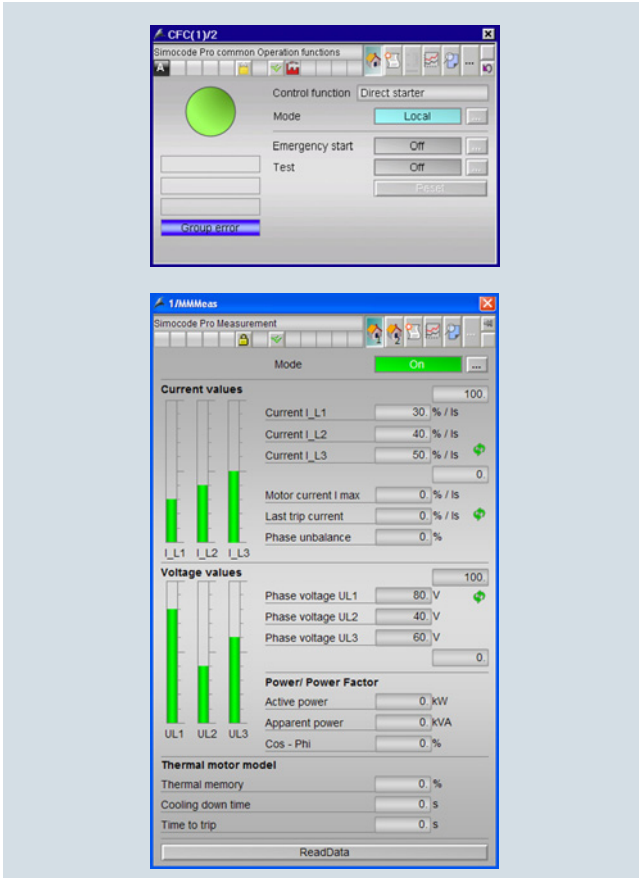
In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial security concept. Siemens products and solutions represent only one component of such a concept.

For more information about the subject of Industrial Security, [see](#) www.siemens.com/industrialsecurity.

Parameterization, Configuration and Visualization with SIRIUS

Introduction

Block libraries for SIMATIC PCS 7



Advanced Process Library (APL) – faceplates and blocks for control and measured data of the SIMOCODE pro block library for PCS 7

The corresponding devices can be easily and conveniently installed into the SIMATIC PCS 7 process control system with the PCS 7 block library for SIMOCODE, soft starters, as well as the AS-Interface. PCS 7 block libraries contain the diagnostics and driver blocks corresponding with the diagnostics and driver concept of SIMATIC PCS 7 as well as the elements (symbols and faceplate) required for operator control and process monitoring.

Types of delivery and licenses

The PCS 7 block libraries supplied on CD-ROM allow users to run the required engineering software on the engineering station (single license) including the runtime software for executing the AS blocks in an automation system (single license). If the AS blocks are to be used in additional automation systems, the corresponding number of runtime licenses are required which are supplied without a data carrier.

Article No. scheme of the block libraries for SIMATIC PCS 7

Product versions	Article number
SIRIUS engineering software	3ZS1 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> - <input type="checkbox"/> X X <input type="checkbox"/> <input type="checkbox"/> - <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Type of software	e.g. 6 = standard FB/FC (Runtime) <input type="checkbox"/>
Package designation 1	e.g. 3 = PCS 7 <input type="checkbox"/>
Package designation 2	e.g. 3 = soft starter <input type="checkbox"/>
Type	e.g. 1 = for ES and AS <input type="checkbox"/>
Serial number	e.g. 0 <input type="checkbox"/>
Function status	e.g. 2 <input type="checkbox"/>
Product category	e.g. 0 = normal product <input type="checkbox"/>
Language	e.g. Y = multilingual <input type="checkbox"/>
Delivery versions	e.g. A = basic product with program on data medium and license <input type="checkbox"/>
License type	e.g. 0 = single license <input type="checkbox"/>
Example	3ZY1 6 3 3 - 1 X X 0 2 - 0 Y A 0

Note:

The Article No. scheme shows an overview of product versions for better understanding of the logic behind the article numbers.

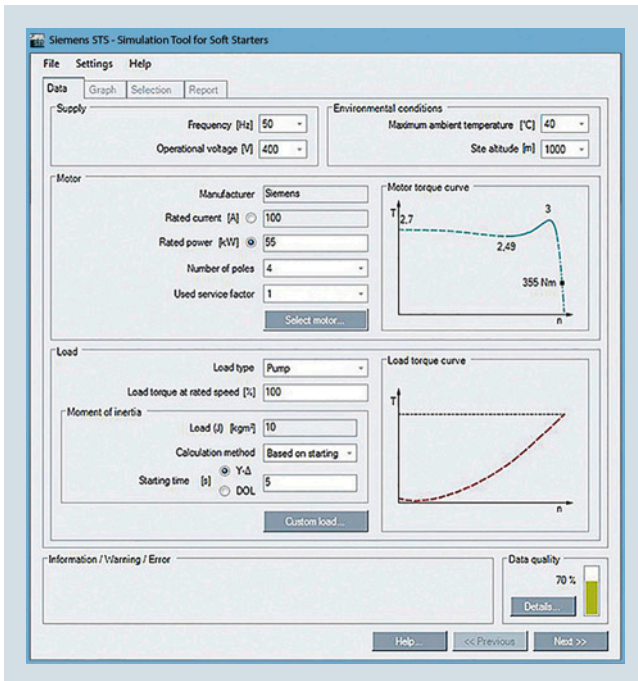
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In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial security concept. Siemens products and solutions represent only one component of such a concept.

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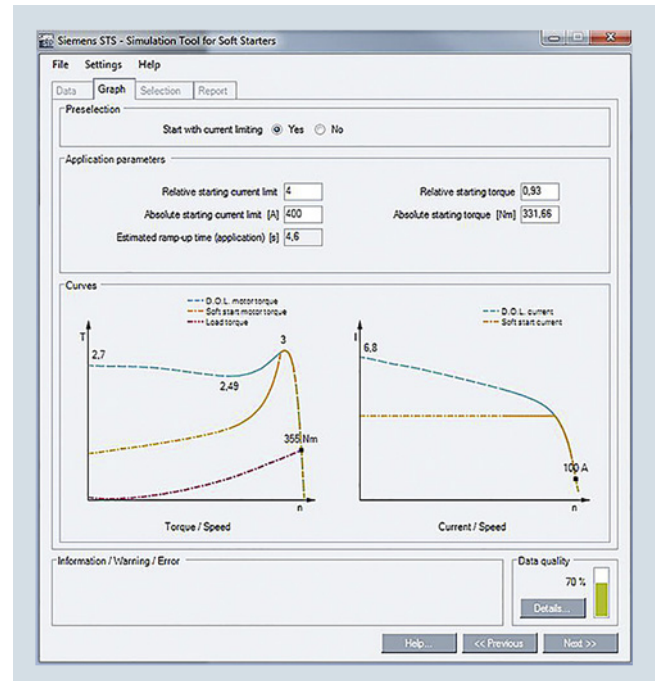
Overview



Easy input of motor and load data

More information

Simulation Tool for Soft Starters (STS) see <https://support.industry.siemens.com/cs/ww/en/ps/16221>



Graphic display of start operations

The Simulation Tool for Soft Starters (STS) provides a convenient means of designing soft starters using a simple, quick and easy-to-use interface. Entering the motor and load data will simulate the application and prompt suggestions for suitable soft starters.

The Simulation Tool for Soft Starters (STS) is available free of charge as a download.

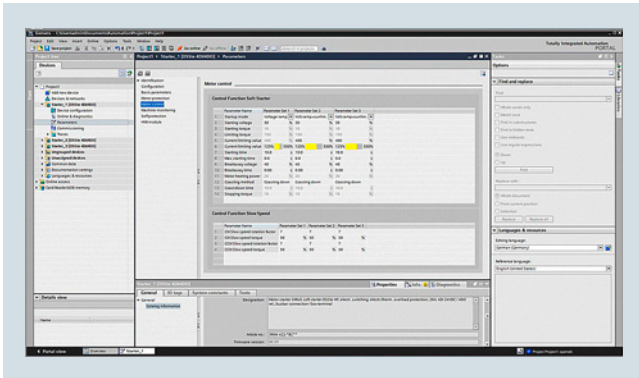
Benefits

- Simple, quick and user-friendly operator interface
- Detailed and up-to-date Siemens motor database, including IE3 motors. IE4 motor data will follow as soon as it is available.
- Simulation of heavy starting up to CLASS 30
- Update-capable (e.g. motors, load types, functions)
- Fast simulations with minimum input data
- Immediate, graphical curve charts of start operations with limit values
- View in table form of suitable soft starters for the application

Parameterization, Configuration and Visualization with SIRIUS

SIRIUS Soft Starter ES (TIA Portal)

Overview



Easy and clearly arranged parameter setting of the 3RW44 soft starter with SIRIUS Soft Starter ES (TIA Portal)

More information

Technical specifications and system requirements, see <https://support.industry.siemens.com/cs/de/en/ps/24230/td>

The SIRIUS Soft Starter ES (TIA Portal) software permits quick and easy parameterization, monitoring and diagnostics of SIRIUS 3RW44 High Feature soft starters for service purposes. The device parameters can be configured directly on a PC and transferred to the soft starter through a serial cable or an optional PROFIBUS/PROFINET interface.

Version 14, which is based on the central engineering framework Totally Integrated Automation Portal (TIA Portal), is available in addition to Soft Starter ES Version 2007.

SIRIUS Soft Starter ES V14 is integrated seamlessly when further TIA Portal-based software such as STEP 7 or WinCC is available, thus enabling users to achieve a consistent, efficient and intuitive solution for all automation tasks.

However, use of SIRIUS Soft Starter ES V14 as stand-alone software also provides these advantages.

Efficient engineering with three program versions

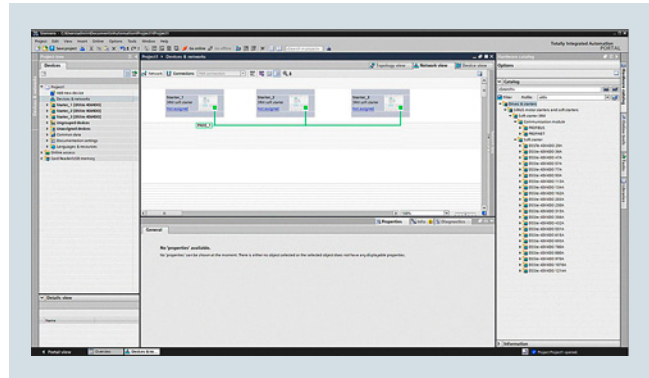
The SIRIUS Soft Starter ES (TIA Portal) software program is available in three versions, which differ in their user-friendliness, scope of functions and price.

SIRIUS Soft Starter ES V14	Basic	Standard	Premium
Access via the local interface on the device	✓	✓	✓
Parameter assignment	✓	✓	✓
Operating	✓	✓	✓
Diagnostics	✓	✓	✓
Creation of typicals	--	✓ ¹⁾	✓
Parameter export	--	✓	✓
Comparison functions	--	✓	✓
Service data (slave pointer, statistics data)	--	✓	✓
Access via PROFIBUS/PROFINET	--	--	✓
Parameter comparison	--	--	✓
Teleservice through MPI	--	--	✓
Routing	--	--	✓

✓ Function available

-- Function not available

¹⁾ Typicals with Service Pack 1 and higher.



Graphic presentation of measured values with the trace function (oscilloscope function) of SIRIUS Soft Starter ES (TIA Portal) Standard and Premium

Additional functions

SIRIUS Soft Starter ES V14 offers numerous advantages of the TIA Portal that can be used in an integrated working environment.

Seamless integration

When using other TIA Portal-based software such as STEP 7 or WinCC, for example, the configuration for devices and networks for all components used is created in a standardized environment.

Working with libraries

Users can create copy templates for 3RW44 soft starter device configuration and can manage them in global or project libraries. This way, individual modules, diagrams and complete device configurations can be saved as reusable elements for frequently occurring tasks.

Teleservice through MPI



The SIRIUS Soft Starter ES (TIA Portal) Premium version supports the use of MPI Teleservice (comprising the Teleservice software and various Teleservice adapters) for remote diagnostics of the devices. This facilitates diagnostics and maintenance, and it shortens response times for service purposes.

Benefits

- Clearly arranged configuring of device functions and their parameters – online and offline
- Effective diagnostics functions on the soft starter and display of the most important measured values
- Trace function (oscilloscope function) for recording measured values and events (in the SIRIUS Soft Starter ES (TIA Portal) Standard and Premium versions).
- Complete transparency thanks to printout, logbook and event memory
- High degree of user-friendliness – convenient user interface, with English, German, French, Italian, Spanish and Chinese as possible operating languages
- Time savings thanks to shorter startup times
- Fast, low-cost licensing using a simple licensing procedure (available online too)

Selection and ordering data**SIRIUS Soft Starter ES (TIA Portal) parameterization and service software for SIRIUS 3RW44 soft starters**

- Delivered without PC cable

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
SIRIUS Soft Starter ES V14 Basic						
 <p>Floating license for one user Engineering software in limited-function version for diagnostics purposes, software and documentation on DVD, 6 languages (German/English/French/Italian/Spanish/Chinese), Combo license for parallel use of versions 2007 and V14 of SIRIUS ES, communication via system interface</p> <ul style="list-style-type: none"> • License key on USB flash drive, Class A, including DVD • License key download, Class A, without DVD 	5	3ZS1320-4CC10-0YA5		1	1 unit	42H
	▶	3ZS1320-4CE10-0YB5		1	1 unit	42H
3ZS1320-4CC10-0YA5						
SIRIUS Soft Starter ES V14 Standard						
 <p>Floating license for one user Engineering software, software and documentation on DVD, 6 languages (German/English/French/Italian/Spanish/Chinese), Combo license for parallel use of versions 2007 and V14 of SIRIUS ES, communication via system interface</p> <ul style="list-style-type: none"> • License key on USB flash drive, Class A, including DVD • License key download, Class A, without DVD <p>Software Update Service For 1 year with automatic extension, requires the current software version, engineering software, software and documentation on DVD, 6 languages (German/English/French/Italian/Spanish/Chinese), Combo license for parallel use of versions 2007 and V14 of SIRIUS ES, communication via system interface</p>	5	3ZS1320-5CC10-0YA5		1	1 unit	42H
	▶	3ZS1320-5CE10-0YB5		1	1 unit	42H
	▶	3ZS1320-5CC10-0YL5		1	1 unit	42H
3ZS1320-5CC10-0YA5						

Note:

Please order PC cable separately, [see page 14/8](#).

For a description of the software versions, [see page 14/6](#).

Parameterization, Configuration and Visualization with SIRIUS

SIRIUS Soft Starter ES (TIA Portal)

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	d					

SIRIUS Soft Starter ES V14 Premium



3ZS1320-6CC10-0YA5

Floating license for one user

Engineering software, software and documentation on DVD, 6 languages (German/English/French/Italian/Spanish/Chinese), Combo license for parallel use of versions 2007 and V14 of SIRIUS ES, communication via system interface or PROFIBUS/PROFINET

- License key on USB flash drive, Class A, including DVD
- License key download, Class A, without DVD

Software Update Service

For 1 year with automatic extension, requires the current software version, engineering software, software and documentation on DVD, Combo license for parallel use of versions 2007 and V14 of SIRIUS ES, communication via system interface or PROFIBUS/PROFINET

5	▶	3ZS1320-6CC10-0YA5		1	1 unit	42H
	▶	3ZS1320-6CE10-0YB5		1	1 unit	42H
	▶	3ZS1320-6CC10-0YL5		1	1 unit	42H

Note:

Please order PC cable separately, [see Accessories](#).

For a description of the software versions, [see page 14/6](#).

Accessories

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	d					

Optional accessories



3UF7941-0AA00-0

USB PC cables

For connecting to the USB interface of a PC/PG, for communication with Soft Starter ES via the system interface

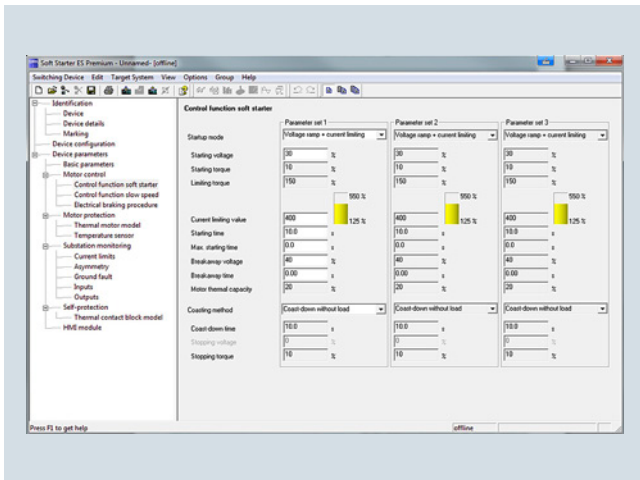
	▶	3UF7941-0AA00-0		1	1 unit	42J
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Optional communication module for SIRIUS 3RW44

- PROFIBUS
- PROFINET

	▶	3RW4900-0KC00		1	1 unit	42H
	▶	3RW4900-0NC00		1	1 unit	42H

Overview



Easy and clearly arranged parameter setting of the 3RW44 soft starter with Soft Starter ES 2007

More information

Technical specifications and system requirements, see <https://support.industry.siemens.com/cs/ww/en/ps/16709/td>

The Soft Starter ES software permits the quick and easy parameterization, monitoring and diagnostics of SIRIUS 3RW44 High-Feature soft starters for service purposes. The device parameters can be configured directly on the PC and transferred to the soft starter through a serial cable or an optional PROFIBUS/PROFINET interface.

Efficient engineering with three program versions

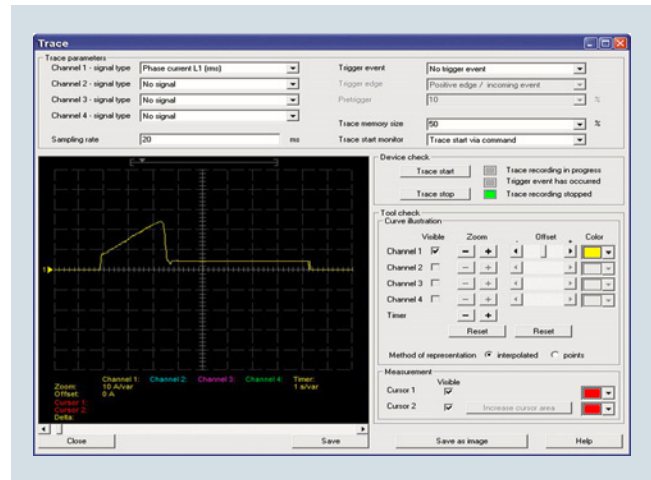
The Soft Starter ES software program is available in three versions which differ in their user-friendliness, scope of functions and price.

Soft Starter ES	Basic	Standard	Premium
Access via the local interface on the device	✓	✓	✓
Parameter assignment	✓	✓	✓
Operating	✓	✓	✓
Diagnostics	✓	✓	✓
Creation of typicals	--	✓ ¹⁾	✓
Parameter export	--	✓	✓
Comparison functions	--	✓	✓
Standard-compliant printout according to EN ISO 7200	--	✓	✓
Service data (slave pointer, statistics data)	--	✓	✓
Access via PROFIBUS/PROFINET	--	--	✓
Group functions	--	--	✓
Teleservice via MPI	--	--	✓
Routing	--	--	✓
STEP 7 object manager ²⁾	--	--	✓

- ✓ Function available
- Function not available

¹⁾ Typicals with Service Pack 1 and higher.

²⁾ Only for STEP 7 V5.x



Graphic presentation of measured values with the trace function (oscilloscope function) of Soft Starter ES 2007 Standard and Premium

Additional functions

Standard-compliant printouts

The software tool greatly simplifies machine documentation. It enables parameterization printouts according to EN ISO 7200. The elements to be printed are easy to select and group as required.

Easy creation of typicals

Typicals can be created for devices and applications with only minimum differences in their parameters. These typicals contain all the parameters which are needed for the parameterization. In addition it is possible to specify which of these parameters are fixed and which can be adapted, e.g. by the startup engineer.

Group function

For the user-friendly parameterization of numerous devices or applications of the same type, the programs of the SIRIUS ES software family offer a group function that enables the parameterization of several devices to be read out or written through PROFIBUS/PROFINET. In conjunction with typicals it is even possible to selectively adapt the same parameters in any number of parameterizations.

Teleservice through MPI

The Soft Starter ES Premium version supports the use of MPI Teleservice (comprising the Teleservice software and various Teleservice adapters) for remote diagnostics of the devices. This facilitates diagnostics and maintenance, and it shortens response times for service purposes.

Parameterization, Configuration and Visualization with SIRIUS

Soft Starter ES




Benefits

- Transparent setting of the device functions and their parameters – online and offline
- Effective diagnostics functions on the soft starter and display of the most important measured values
- Trace function (oscilloscope function) for recording measured values and events (in the Soft Starter ES Standard and Premium versions)
- Complete transparency thanks to printout, logbook and event memory
- High degree of user-friendliness – convenient user interface, with German, English and French as possible operating languages
- Time savings through shorter startup times
- Fast, low-cost licensing using a simple licensing procedure (available online too)

Selection and ordering data

Soft Starter ES parameterization and service software for SIRIUS 3RW44 soft starters

- Delivered without PC cable


Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	d					
Soft Starter ES 2007 Basic						
 <p>Floating license for one user Engineering software in limited-function version for diagnostics purposes, software and documentation on CD, 3 languages (German/English/French), communication via system interface</p> <ul style="list-style-type: none"> • License key on USB flash drive, Class A, including CD • License key download, Class A, without CD 	5	3ZS1313-4CC10-0YA5		1	1 unit	42H
	▶	3ZS1313-4CE10-0YB5		1	1 unit	42H
3ZS1313-4CC10-0YA5						
Soft Starter ES 2007 Standard						
 <p>Floating license for one user Engineering software, software and documentation on CD, 3 languages (German/English/French), communication via system interface</p> <ul style="list-style-type: none"> • License key on USB flash drive, Class A, including CD • License key download, Class A, without CD 	5	3ZS1313-5CC10-0YA5		1	1 unit	42H
	▶	3ZS1313-5CE10-0YB5		1	1 unit	42H
3ZS1313-5CC10-0YA5						
Soft Starter ES 2007 Premium						
 <p>Floating license for one user Engineering software, software and documentation on CD, 3 languages (German/English/French), communication via system interface or PROFIBUS/PROFINET, STEP 7 Object Manager</p> <ul style="list-style-type: none"> • License key on USB flash drive, Class A, including CD • License key download, Class A, without CD 	5	3ZS1313-6CC10-0YA5		1	1 unit	42H
	▶	3ZS1313-6CE10-0YB5		1	1 unit	42H
3ZS1313-6CC10-0YA5						

Notes:

Please order PC cable separately, [see Accessories](#).

For a description of the software versions, [see page 14/9](#).

Accessories

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	d					
Optional accessories						
 <p>USB PC cables</p> <p>For connecting to the USB interface of a PC/PG, for communication with Soft Starter ES via the system interface</p>	▶	3UF7941-0AA00-0		1	1 unit	42J
	3UF7941-0AA00-0					
Optional communication module for SIRIUS 3RW44						
• PROFIBUS	▶	3RW4900-0KC00		1	1 unit	42H
• PROFINET	▶	3RW4900-0NC00		1	1 unit	42H

Overview

More information

Technical specifications, see <https://support.industry.siemens.com/cs/de/en/ps/16710/td>

Programming and Operating Manual for the "PCS 7 Soft Starter 3RW44 V6.2/V7.1" and "3RW44 Soft Starter PCS 7 Library V8 Migration V8.0 + SP2" block libraries see <https://support.industry.siemens.com/cs/ww/en/view/41856585>

Getting Started for the "PCS 7 Soft Starter 3RW44 V6.2/V7.1" and "3RW44 Soft Starter PCS 7 Library V8 Migration V8.0 + SP2" block libraries see <https://support.industry.siemens.com/cs/ww/en/view/41856498>

The SIRIUS 3RW44 soft starter PCS 7 block library can be used for simple and easy integration of SIRIUS 3RW44 soft starters into the SIMATIC PCS 7 process control system. The SIRIUS 3RW44 soft starter PCS 7 block library contains the diagnostics and driver blocks corresponding with the SIMATIC PCS 7 diagnostics and driver concept as well as the elements (symbols and faceplates) required for operator control and process monitoring.

Integrated functionality for optimal process control for all process control systems

In addition to the general sensor technology, the motor feeder data is increasingly being integrated into the process control system. By integrating the SIRIUS 3RW44 soft starters into the process control system it becomes possible to prevent errors in the motor feeder simply and reliably, or to detect these errors quickly and rectify them. Downtimes are reduced to a minimum or can be prevented before they happen.

For example, the output and display of the key measured values calculated by the 3RW44 is also a good aid for being able to assess and monitor the current system status.

Easy integration with the PCS 7 block library

The PCS 7 block library can be used for simple and easy integration of SIRIUS 3RW44 soft starters into the SIMATIC PCS 7 process control system. The focus here is simple configuration. Functioning of the blocks is based on the PCS 7 standard libraries and is optimally harmonized with the functions of the SIRIUS 3RW44.

Users who have previously integrated motor feeders into conventional technology via signal blocks and motor or valve blocks or, for example, already have experience with SIMOCODE blocks, are easily able to switch to SIRIUS 3RW44.

All blocks required for the automation systems are provided by the PCS 7 block library – as are the block symbols and faceplates for the operator station required for monitoring and control.

With the integration of the SIRIUS 3RW44 into SIMATIC PDM, the system-wide device parameterization and diagnostics of the SIRIUS 3RW44 soft starters are possible from a central point.

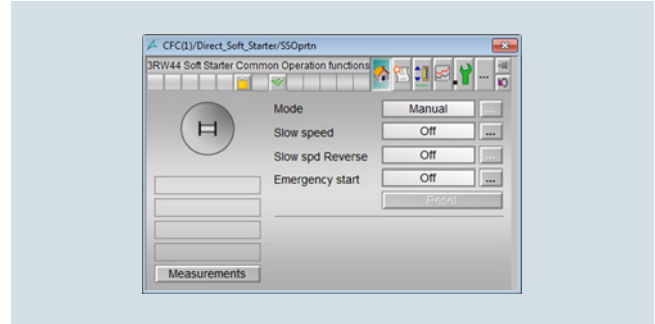
Motor block for direct control of the drive

The low-voltage motors started and protected by SIRIUS 3RW44 soft starters can be integrated into the process automation via the motor blocks. This means that they form the interface between the process control system and the motors controlled by the SIRIUS 3RW44.

To reduce the amount of configuring work required, functions for signal processing and technological functions are integrated into one motor block.

The important measured value – the current in the motor feeder – is recorded via the 3RW44 and monitored for motor protection. The motor current is accessible from the I&C system via the motor blocks.

The block symbols and faceplates for the motor blocks display the motor feeders on the operator station and provide all the required information for monitoring and control as well as detailed diagnostics.



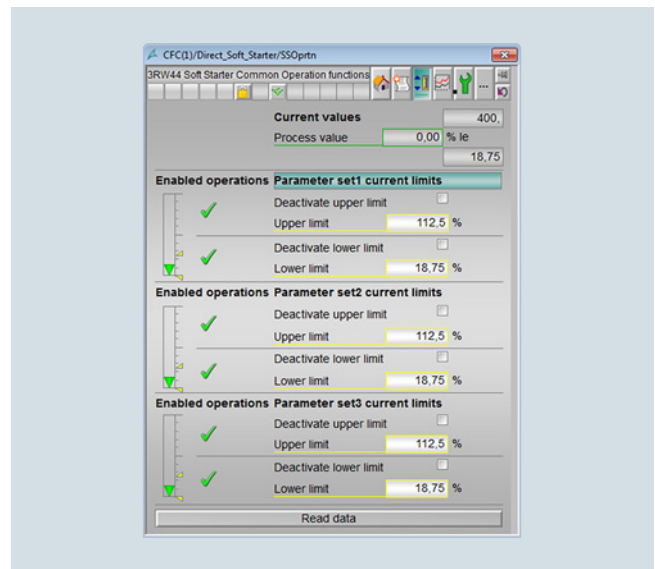
Faceplate of the motor block

Evaluation of additional motor feeder measurements

All measured values calculated by the soft starter, such as current, voltage and output of the feeder, are displayed and output via the measured value blocks. A key advantage here is that, where required, a wide range of information on important motor feeder measurements is available, e.g. for load monitoring.

The 3RW44 is not only able to detect measured values here, but also to react if these values are exceeded or undershot, for example, via custom settings – e.g. with a motor shut-down or with a warning.

The faceplate for the measured values is accessed from the motor block faceplate.



Faceplate for measured values

Evaluation of maintenance-related motor feeder data

The 3RW44 has powerful functions to detect and monitor maintenance-related motor feeder data. For example, the operating and downtimes of the motor, operating cycles and overload tripping events are detected and stored directly on the device. If required, the information already on the device is available via the statistics block in the I&C system. The display is provided on a separate faceplate for the statistics block on the operator station.

Parameterization, Configuration and Visualization with SIRIUS

SIRIUS 3RW44 Soft Starter block library for SIMATIC PCS 7

Benefits

- Uniform and continuous integration into SIMATIC PCS 7
- Standardized blocks for simple integration and optimal operation
- Including Advanced Process Library (APL) in Version V8
- Greater process transparency due to greater information density in the process control system
- System-wide device parameterization and diagnostics with SIMATIC PDM

Selection and ordering data

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	d					

SIRIUS 3RW44 soft starter block library for SIMATIC PCS 7 version V8 with Advanced Process Library (APL)



3ZS1633-1XX02-0YA0

Engineering software V8

For one engineering station (single license) including runtime software for execution of the AS blocks in an automation system (single license), German/English

Scope of supply:
AS blocks and faceplates for integrating SIRIUS 3RW44 into the PCS 7 process control system, with Advanced Process Library, for PCS 7 version V8.0/V8.1/V8.2

Type of delivery:
Software and documentation on CD, one license for one engineering station, one license for one automation system

▶ **3ZS1633-1XX02-0YA0** 1 1 unit 42H

Runtime license V8

For execution of the AS blocks in an automation system (single license)

Required for using the AS blocks of the engineering software V8 on an additional automation system within a plant

Type of delivery:
One license for one automation system, without software and documentation

▶ **3ZS1633-2XX02-0YB0** 1 1 unit 42H

Parameterization, Configuration and Visualization with SIRIUS

SIRIUS 3RW44 Soft Starter block library for SIMATIC PCS 7

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	d					

SIRIUS 3RW44 soft starter block library for SIMATIC PCS 7 version V7 without Advanced Process Library (APL)


3ZS1633-1XX00-0YAO

Engineering software V7 ▶

For one engineering station (single license) including runtime software for execution of the AS blocks in an automation system (single license), German/English

Scope of supply:
AS blocks and faceplates for integrating SIRIUS 3RW44 into the PCS 7 process control system, for PCS 7 version V6.1/V7.0/V7.1¹⁾

Type of delivery:
Software and documentation on CD, one license for one engineering station, one license for one automation system

3ZS1633-1XX00-0YAO

1 1 unit 42H

Runtime license V7 ▶

For execution of the AS blocks in an automation system (single license)

Required for using the AS blocks of the engineering software V7 or the engineering software migration V7-V8 on an additional automation system within a plant

Type of delivery:
One license for one automation system, without software and documentation

3ZS1633-2XX00-0YB0

1 1 unit 42H

Engineering software migration V7-V8 ▶

For upgrading (migrating) existing engineering software V6.1/V7.0/V7.1 of the SIRIUS 3RW44 soft starter block library for PCS 7

Conditions of use:
Availability of the engineering software V7 (license) of the SIRIUS 3RW44 soft starter block library for PCS 7 for the PCS 7 version V6.1, V7.0 or V7.1

The V7-V8 engineering software migration can be installed directly onto a system with PCS 7 version V8; installation of the previous version is unnecessary.

For one engineering station (single license) including runtime software for execution of the AS blocks in an automation system (single license), German/English

Scope of supply:
AS blocks and faceplates for integrating SIRIUS 3RW44 soft starters into the PCS 7 process control system, for PCS 7 version V8.0 and higher

Type of delivery:
Software and documentation on CD, license for upgrading an existing license for one engineering station and a plant's assigned runtime licenses

3ZS1633-1XX10-0YE0

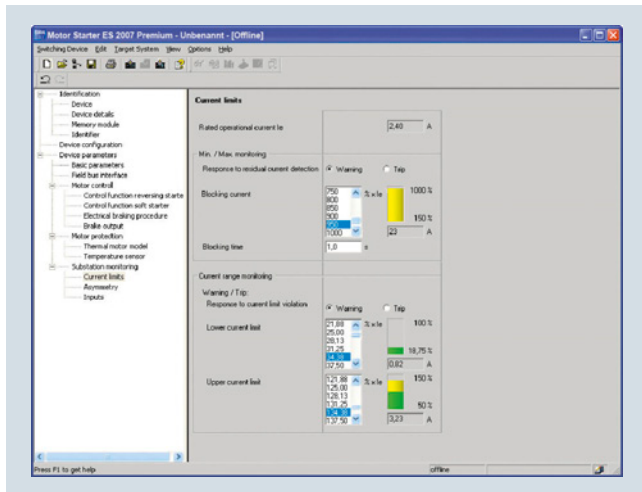
1 1 unit 42H

¹⁾ For earlier versions of the engineering software, SP1 can be downloaded from www.siemens.com/sirius-engineering.

Parameterization, Configuration and Visualization with SIRIUS

Motor Starter ES

Overview



Motor Starter ES for parameterization, monitoring, diagnostics and testing of motor starters

More information

Technical specifications and system requirements, see <https://support.industry.siemens.com/cs/ww/en/ps/16713/td>

Motor Starter ES is used for the start up, parameterization, diagnostics, documentation and preventive maintenance of SIMATIC ET 200S, ET 200pro, ECOFAST and M200D motor starters.

Interfacing is performed

- Via the local interface on the device
- With PROFIBUS DP-V1-capable motor starters from any point in PROFIBUS or in PROFINET (applies to ET 200S DP V1/ET 200pro/ECOFAST/M200D)
- With PROFINET capable motor starters from any point in PROFINET or in PROFIBUS (applies to ET 200S DP V1/ET 200pro/M200D)

Using Motor Starter ES, the communication-capable motor starters are easily parameterized during start up, monitored during normal operation and successfully diagnosed for service purposes. Preventative maintenance is supported by a function for reading out diverse statistical data (e.g. operating hours, operating cycles, cut-off currents, etc.). The user is supported during these procedures with comprehensive Help functions and plain text displays.

Motor Starter ES can either be used as a stand-alone program or it can be integrated into STEP 7 via an Object Manager.

Efficient engineering with three program versions

The Motor Starter ES software program is available in three versions which differ in their user-friendliness, scope of functions and price.

Motor Starter ES	Basic	Standard	Premium
ET 200S High Feature PROFIBUS IM	✓	✓	✓
ET 200S High Feature PROFINET IM	✓	✓	✓
ECOFAST AS-Interface High Feature	✓	✓	--
ECOFAST PROFIBUS	✓	✓	✓
ET 200pro PROFIBUS IM	✓	✓	✓
ET 200pro PROFINET IM	✓	✓	✓
M200D AS-Interface Standard	✓	✓	(✓)
M200D PROFIBUS	✓	✓	✓
M200D PROFINET	✓	✓	✓

✓ Function available, (✓) Available with restricted functionality

-- Function not available

Motor Starter ES	Basic	Standard	Premium
Access through the local interface on the device	✓	✓	✓
Parameter assignment	✓	✓	✓
Operating	✓	✓	✓
Diagnostics	--	✓	✓
Creation of typicals	--	✓	✓
Comparison functions	--	✓	✓
Standard-compliant printout according to EN ISO 7200	--	✓	✓
Service data (slave pointer, statistics data)	--	✓	✓
Access through PROFIBUS	--	--	✓
Access through PROFINET	--	--	✓
S7 routing	--	--	✓
Teleservice through MPI	--	--	✓
STEP 7 object manager ¹⁾	--	--	✓
Trace function	--	✓	✓

✓ Function available

-- Function not available

¹⁾ Only for STEP 7 V5.x

Additional functions

Standard-compliant printouts

The software tool greatly simplifies machine documentation. It enables parameterization printouts according to EN ISO 7200. The elements to be printed are easy to select and group as required.

Easy creation of typicals

Typicals can be created for devices and applications with only minimum differences in their parameters. These typicals contain all the parameters which are needed for the parameterization. In addition it is possible to specify which of these parameters are fixed and which can be adapted, e.g. by the startup engineer.

Teleservice through MPI

The Motor Starter ES Premium version supports the use of MPI Teleservice (comprising the Teleservice software and various Teleservice adapters) for remote diagnostics of the devices. This facilitates diagnostics and maintenance, and it shortens response times for service purposes.




Benefits

- Fast, error-free configuration and startup of motor starters even without extensive previous knowledge
- Transparent setting of the device functions and their parameters – online and offline
- Effective diagnostics functions on the soft starter and display of the most important measured values
- Trace function (oscilloscope function) for recording measured values and events (included in the Motor Starter ES Standard and Premium software version for M200D PROFIBUS and PROFINET).

Selection and ordering data**Parameterization, start up and diagnostics software
Motor Starter ES 2007**

For ECOFAST Motor Starter, SIMATIC ET 200S High-Feature Starter, SIMATIC ET 200pro Starter and M200D (AS-I Standard, PROFIBUS, PROFINET)

- Delivered without PC cable

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	d					
Motor Starter ES 2007 Basic						
	Floating license for one user Engineering software in limited-function version for diagnostics purposes, software and documentation on CD, 3 languages (German/English/French), communication via system interface					
	• License key on USB flash drive, Class A, including CD	5	3ZS1310-4CC10-0YA5	1	1 unit	42D
	• License key download, Class A, without CD	▶	3ZS1310-4CE10-0YB5	1	1 unit	42D
3ZS1310-4CC10-0YA5						
Motor Starter ES 2007 Standard						
	Floating license for one user Engineering software, software and documentation on CD, 3 languages (German/English/French), communication via system interface					
	• License key on USB flash drive, Class A, including CD	5	3ZS1310-5CC10-0YA5	1	1 unit	42D
	• License key download, Class A, without CD	▶	3ZS1310-5CE10-0YB5	1	1 unit	42D
3ZS1310-5CC10-0YA5						
Motor Starter ES 2007 Premium						
	Floating license for one user Engineering software, software and documentation on CD, 3 languages (German/English/French), communication via system interface or PROFIBUS/PROFINET, STEP 7 Object Manager					
	• License key on USB flash drive, Class A, including CD	5	3ZS1310-6CC10-0YA5	1	1 unit	42D
	• License key download, Class A, without CD	▶	3ZS1310-6CE10-0YB5	1	1 unit	42D
3ZS1310-6CC10-0YA5						

Notes:

Please order PC cable separately, see [Accessories](#).

For a description of the software versions, see [page 14/14](#).

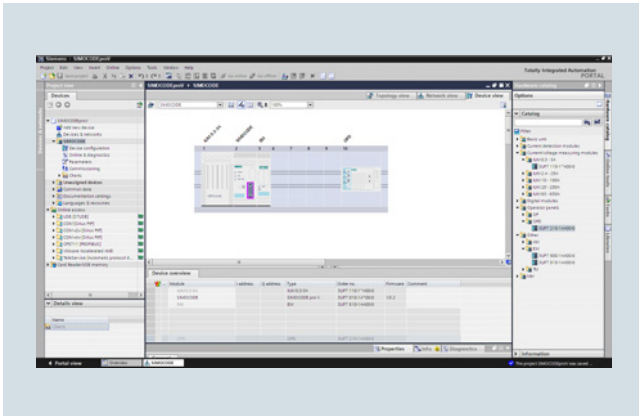
Accessories

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	d					
Optional accessories						
		RS 232 interface cable				
	5	Serial data connection between ET 200pro MS/FC, M200D and laptop/PC/PG or MS		1	1 unit	42D
		USB interface cable				
	3	Serial data connection between ET 200pro MS/FC, M200D and laptop/PC/PG or MS		1	1 unit	346
		USB/serial adapters				
	5	For connecting an RS 232 PC cable to the USB interface of a PC, recommended for use in conjunction with ET 200S/ECOFAST/ET 200pro motor starters		1	1 unit	42J

Parameterization, Configuration and Visualization with SIRIUS

SIMOCODE ES (TIA Portal)

Overview



Selection of SIMOCODE pro device configuration in SIMOCODE ES (TIA Portal)

More information

Homepage, see www.siemens.com/sirius-engineering

Industry Mall, see www.siemens.com/product?3ZS1

Technical specifications see <https://support.industry.siemens.com/cs/de/en/ps/16716/td>

SIMOCODE ES (TIA Portal) software download, see <https://support.industry.siemens.com/cs/ww/en/view/109745869>

SIMOCODE ES 2007 software download, see <https://support.industry.siemens.com/cs/ww/en/view/109480470>

SIMOCODE ES is the central software for configuration, startup, operation and diagnostics of SIMOCODE pro.

Version 14, which is based on the central engineering framework Totally Integrated Automation Portal (TIA Portal), is available in addition to SIMOCODE ES Version 2007.

SIMOCODE ES V14 is integrated seamlessly when further TIA Portal-based software such as STEP 7 or WinCC is available, thus enabling users to achieve a consistent, efficient and intuitive solution for all automation tasks.

However, use of SIMOCODE ES V14 as stand-alone software also provides these advantages.

Three program versions

The user can choose between three different versions of SIMOCODE ES: SIMOCODE ES Basic, SIMOCODE ES Standard and SIMOCODE ES Premium. While SIMOCODE ES Basic is a powerful tool for startup or maintenance personnel, SIMOCODE ES Standard and Premium are the perfect tools for engineers or configuration engineers on account of their larger scope of functions and integrated graphics editor. Unlike the Standard version, SIMOCODE ES Premium also permits parameterization and diagnostics via PROFIBUS/PROFINET/Ethernet. Indication of all operating, service and diagnostics data supplies important information about the current state of the motor and plant at all times – everywhere on PROFIBUS/PROFINET/Ethernet.

SIMOCODE ES V14	Basic	Standard	Premium
Access through the local interface on the device	✓	✓	✓
Parameter assignment in list form	✓	✓	✓
Parameter printing in list form	✓	✓	✓
Operating	✓	✓	✓
Diagnostics	✓	✓	✓
Test	✓	✓	✓
Service data	✓	✓	✓
Analog value recording ¹⁾	✓	✓	✓
Trend display of measured values	--	✓	✓
Parameterizing with convenient graphical display	--	✓	✓
Parameterizing with the integrated graphics editor (CFC-based)	--	✓	✓
Printing of diagrams	--	✓	✓
Parameter comparison	--	✓	✓
Access via PROFIBUS/PROFINET/EtherNet ²⁾	--	--	✓
Teleservice through MPI	--	--	✓
Routing ³⁾	--	--	✓

✓ Function available

-- Function not available

¹⁾ For SIMOCODE pro V.

²⁾ In combination with Modbus devices, SIMOCODE ES Premium does not offer any additional functions compared with SIMOCODE ES Standard.

³⁾ See <http://support.automation.siemens.com/WW/view/en/109738745>.

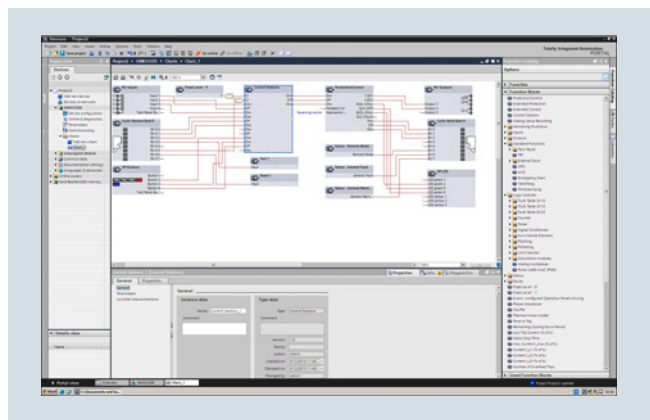
Working with libraries

Users can create copy templates for SIMOCODE pro device configuration and can manage them in global or project libraries.

This way, individual modules, diagrams and complete device configurations can be saved as reusable elements for frequently occurring tasks.

Integrated graphics editor

The graphics editor is a part of SIMOCODE ES Standard and SIMOCODE ES Premium. It is based on the Continuous Function Chart (CFC) and adds a powerful tool to the parameterizing interface that enables easy parameterization of devices by drag & drop. Extremely compact documentation of all configured parameters is possible, as is the graphic online presentation of the configured device functions including all signal states during operation.



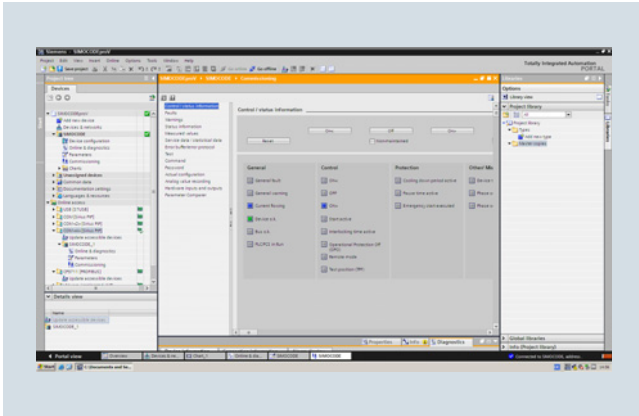
Parameterize easily and ergonomically with the CFC-based graphics editor of SIMOCODE ES V14

Parameterization, Configuration and Visualization with SIRIUS

SIMOCODE ES (TIA Portal)

Online functions for startup and diagnosis

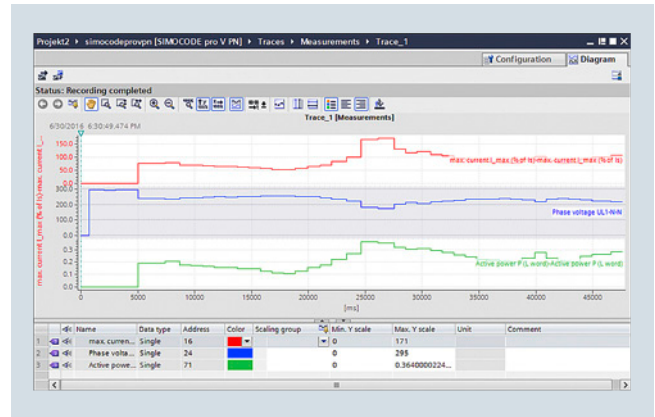
To this end, SIMOCODE ES provides powerful functions for startup and diagnosis of motor feeders. Besides a detailed display of status information and the causes of faults, all available measurement and statistics data can be retrieved online. Access to the fault and event memory and also to analog values recorded on the device, e.g. current or voltage, is also possible.



Commissioning functions of SIMOCODE ES V14

Trend display of measured values

With this online function, SIMOCODE ES Standard or Premium can present the trends of different measured values. It is thus possible for example to record and evaluate the start-up characteristic of a motor or its behavior under different load conditions.



Live trend display of SIMOCODE ES V14

Additional functions

SIMOCODE ES V14 offers numerous advantages of the TIA Portal that can be used in an integrated working environment.

Seamless integration

When using other TIA Portal-based software such as STEP 7 or WinCC, for example, the configuration for devices and networks for all components used is created in a standardized environment.

Benefits

- Easy parameterization with the graphics editor based on the Continuous Function Chart (CFC) reduces engineering work and shortens start up times
- Clear plant documentation by means of graphic presentation
- Detailed information, also when there are faults, is a help for maintenance personnel and shortens downtimes
- Universally applicable through stand-alone version or seamless integration into the central engineering framework when other TIA Portal-based software such as STEP 7 or WinCC are available
- Parameter changes are also possible during normal operation
- Users can create copy templates for device configurations and can manage them in global libraries

Parameterization, Configuration and Visualization with SIRIUS

SIMOCODE ES (TIA Portal)

Selection and ordering data

Parameterization and service software for SIMOCODE pro 3UF7

- Delivered without PC cable

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	d					

SIMOCODE ES V14 Basic



Floating license for one user

Engineering software, software and documentation on DVD, 6 languages (German/English/French/Italian/Spanish/Chinese), Combo license for parallel use of versions 2007 and V14 of SIRIUS ES, for all SIMOCODE pro, online functions via system interface

- License key on USB flash drive, Class A ▶
- License key download, Class A ▶

3ZS1322-4CC12-0YA5

▶ **3ZS1322-4CC12-0YA5**

1 1 unit 42J

▶ **3ZS1322-4CE12-0YB5**

1 1 unit 42J

SIMOCODE ES V14 Standard



Floating license for one user

Engineering software, software and documentation on DVD, 6 languages (German/English/French/Italian/Spanish/Chinese), Combo license for parallel use of versions 2007 and V14 of SIRIUS ES, for all SIMOCODE pro, online functions via system interface, parameterizing with the integrated graphics editor (CFC-based)

- License key on USB flash drive, Class A ▶
- License key download, Class A ▶

3ZS1322-5CC12-0YA5

▶ **3ZS1322-5CC12-0YA5**

1 1 unit 42J

▶ **3ZS1322-5CE12-0YB5**

1 1 unit 42J

Upgrade for SIMOCODE ES 2007

Floating license for one user, engineering software, software and documentation on DVD, license key on USB flash drive, Class A, 6 languages (German/English/French/Italian/Spanish/Chinese), Combo license for parallel use of versions 2007 and V14 of SIRIUS ES, for all SIMOCODE pro, online functions via system interface, parameterizing with integrated graphics editor (CFC-based)

2

▶ **3ZS1322-5CC12-0YE5**

1 1 unit 42J

Software Update Service

For 1 year with automatic extension, requires software version of SIMOCODE ES (TIA Portal), engineering software, software and documentation on DVD, online functions via system interface, parameterizing with integrated graphics editor (CFC-based)

▶

▶ **3ZS1322-5CC12-0YL5**

1 1 unit 42J

Notes:

SIMOCODE ES V13 licenses can also be used for SIMOCODE ES V14.

Please order PC cable separately, [see page 14/19](#).

For a description of the software versions, [see page 14/16](#).

Parameterization, Configuration and Visualization with SIRIUS

SIMOCODE ES (TIA Portal)

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	d					

SIMOCODE ES V14 Premium



3ZS1322-6CC12-0YA5

Floating license for one user

Engineering software, software and documentation on DVD, 6 languages (German/English/French/Italian/Spanish/Chinese), Combo license for parallel use of versions 2007 and V14 of SIRIUS ES, for all SIMOCODE pro, online functions via system interface and PROFIBUS/PROFINET/Ethernet/IP, parameterizing with the integrated graphics editor (CFC-based)

- License key on USB flash drive, Class A
- License key download, Class A

▶	3ZS1322-6CC12-0YA5	1	1 unit	42J
▶	3ZS1322-6CE12-0YB5	1	1 unit	42J

Upgrade for SIMOCODE ES 2007

Floating license for one user, Engineering software, software and documentation on DVD, license key on USB flash drive, Class A, 6 languages (German/English/French/Italian/Spanish/Chinese), Combo license for parallel use of versions 2007 and V14 of SIRIUS ES, for all SIMOCODE pro, online functions via system interface and PROFIBUS/PROFINET/EtherNet/IP, parameterizing with the integrated graphics editor (CFC-based)

2	3ZS1322-6CC12-0YE5	1	1 unit	42J
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Software Update Service

For 1 year with automatic extension, requires software version of SIMOCODE ES (TIA Portal), engineering software, software and documentation on DVD, online functions via system interface and PROFIBUS/PROFINET/EtherNet/IP, parameterizing with integrated graphics editor (CFC-based)

▶	3ZS1322-6CC12-0YL5	1	1 unit	42J
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SIMOCODE ES V14 software download

Trial license, Class A

Engineering software, 6 languages (German/English/French/Italian/Spanish/Chinese), for all SIMOCODE pro, online functions via system interface and PROFIBUS/PROFINET/EtherNet/IP, parameterizing with integrated graphics editor (CFC-based)

▶	3ZS1322-6CE12-0YG8	1	1 unit	42J
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Notes:Please order PC cable separately, see [Accessories](#).For a description of the software versions, see [page 14/16](#).

Accessories

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	d					

Optional accessories



3UF7941-0AA00-0

USB PC cables

For connecting to the USB interface of a PC/PG, for communication with SIMOCODE ES via the system interface

▶	3UF7941-0AA00-0	1	1 unit	42J
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USB/serial adapters

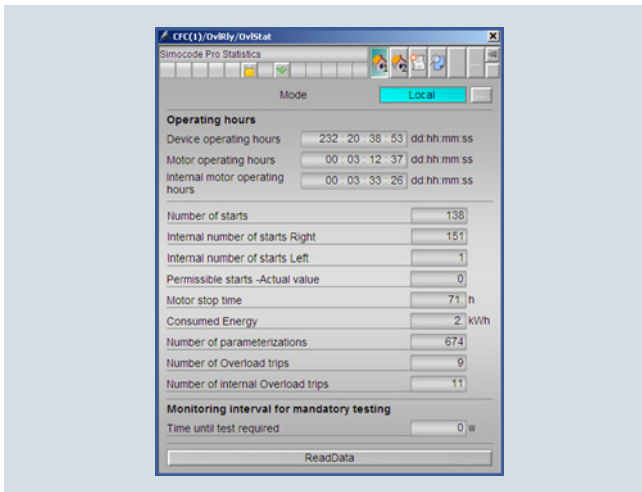
For connecting an RS 232 PC cable to the USB interface of a PC, recommended for use in conjunction with SIMOCODE ES

5	3UF7946-0AA00-0	1	1 unit	42J
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Parameterization, Configuration and Visualization with SIRIUS

SIMOCODE pro block library for SIMATIC PCS 7

Overview



Advanced Process Library (APL) – faceplates and blocks for statistical data of the SIMOCODE pro library for PCS 7

More information

Homepage, see www.siemens.com/sirius-engineering

Industry Mall, see www.siemens.com/product?3ZS1

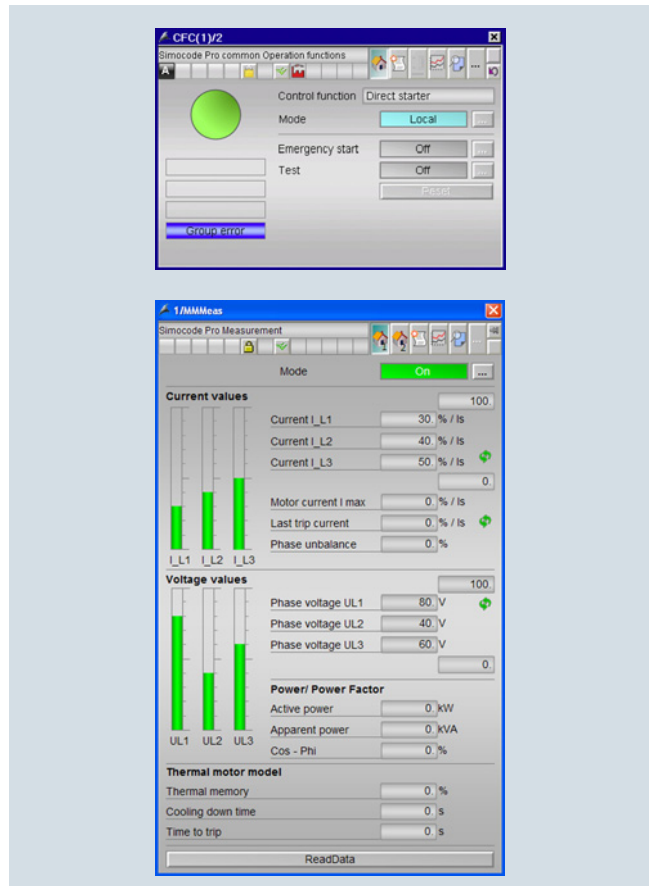
Technical specifications, see

<https://support.industry.siemens.com/cs/de/en/ps/16718/td>

Programming and Operating Manual for the "SIMOCODE pro PCS 7 Library" block libraries:

- Version V9 with Advanced Process Library (APL), see <https://support.industry.siemens.com/cs/ww/en/view/109748465>
- Version V8.2 with Advanced Process Library (APL), see <https://support.industry.siemens.com/cs/ww/en/view/103954289>
- Version V8.0 + SP3 with Advanced Process Library (APL), see <https://support.industry.siemens.com/cs/ww/en/view/84626047>
- Version V7-V9 migration, see <https://support.industry.siemens.com/cs/ww/en/view/109749358>

The PCS 7 block library can be used for simple and easy integration of SIMOCODE pro into the SIMATIC PCS 7 process control system. One focus here is on easy configuration, because the number of required configuration steps is reduced crucially. The configuration of the blocks is based on the PCS 7 standard configuration processes and is optimally harmonized with the functions of SIMOCODE pro. Users who have previously integrated conventional motor feeders into PCS 7 will therefore find it easy to switch to SIMOCODE pro.



Advanced Process Library (APL) – faceplates and function blocks for control and measured data of the SIMOCODE pro library for PCS 7



Benefits

- Uniform and continuous integration into SIMATIC PCS 7
- Standardized blocks for simple integration and optimal operation
- Greater process transparency due to greater information density in the process control system

Parameterization, Configuration and Visualization with SIRIUS

SIMOCODE pro block library for SIMATIC PCS 7

Selection and ordering data

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
SIMOCODE pro block library for SIMATIC PCS 7 version V9 with Advanced Process Library (APL) NEW						
 3ZS1632-1XX03-0YAO	▶	3ZS1632-1XX03-0YA0		1	1 unit	42J
	Engineering software V9 For one engineering station (single license) including runtime software for execution of the AS blocks in an automation system (single license), German/English Scope of supply: AS blocks and faceplates for integrating SIMOCODE pro into the PCS 7 process control system with Advanced Process Library, for PCS 7 version V9.0 Type of delivery: Software and documentation on CD, one license for one engineering station, one license for one automation system					
	▶	3ZS1632-2XX03-0YB0		1	1 unit	42J
Runtime license V9 For execution of the AS blocks in an automation system (single license) Required for using the AS blocks of the engineering software V9 within a plant Type of delivery: One license for one automation system, without software and documentation						
SIMOCODE pro block library for SIMATIC PCS 7 version V8 with Advanced Process Library (APL)						
 3ZS1632-1XX03-0YAO	▶	3ZS1632-1XX02-0YA0		1	1 unit	42J
	Engineering software V8 For one engineering station (single license) including runtime software for execution of the AS blocks in an automation system (single license), German/English Scope of supply: AS blocks and faceplates for integrating SIMOCODE pro into the PCS 7 process control system, with Advanced Process Library for PCS 7 versions V8.0, V8.1 and V8.2 Type of delivery: Software and documentation on CD, one license for one engineering station, one license for one automation system					
	▶	3ZS1632-2XX02-0YB0		1	1 unit	42J
Runtime license V8 For execution of the AS blocks in an automation system (single license) Required for using the AS blocks of the engineering software V8 within a plant Type of delivery: One license for one automation system, without software and documentation						

Parameterization, Configuration and Visualization with SIRIUS

SIMOCODE pro block library for SIMATIC PCS 7

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	d					

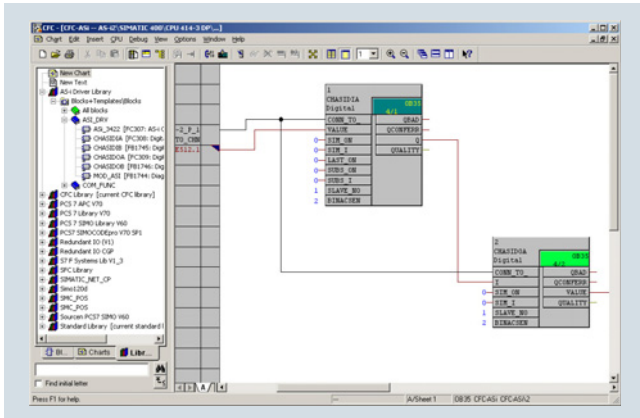
SIMOCODE pro block library for SIMATIC PCS 7 version V7 without Advanced Process Library (APL)



3UF7982-0AA10-0

<p>Engineering software V7</p> <p>For one engineering station (single license) including runtime software for execution of the AS blocks in an automation system (single license), German/English/French</p> <p>Scope of supply: AS blocks and faceplates for integrating SIMOCODE pro into the PCS 7 process control system, for PCS 7 versions V7.0/V7.1</p> <p>Type of delivery: Software and documentation on CD, one license for one engineering station, one license for one automation system</p>	▶	3UF7982-0AA10-0		1	1 unit	42J
<p>Runtime license V7</p> <p>For execution of the AS blocks in an automation system (single license)</p> <p>Required for using the AS blocks of the engineering software V7 or the engineering software migration V7-V9 on an additional automation system within a plant</p> <p>Type of delivery: One license for one automation system, without software and documentation</p>	▶	3UF7982-0AA11-0		1	1 unit	42J
<p>Engineering software migration V7-V9</p> <p>For upgrading (migrating) an existing engineering software V7 of the SIMOCODE pro block library for PCS 7</p> <p>Conditions of use: Availability of the engineering software V7 (license) of the SIMOCODE pro block library for PCS 7 for the PCS 7 version V7.0 or V7.1</p> <p>The engineering software migration V7-V9 can be installed directly onto a system with PCS 7 versions V8 or V9; installation of the previous version is unnecessary.</p> <p>For one engineering station (single license) including runtime software for execution of the AS blocks in an automation system (single license), German/English/French</p> <p>Scope of supply: AS blocks and faceplates for integrating SIMOCODE pro into the PCS 7 process control system, for PCS 7 versions V8.0/V8.1/V8.2/V9.0</p> <p>Type of delivery: Software and documentation on CD, license for upgrading an existing license for one engineering station and a plant's assigned runtime licenses</p>	▶	3UF7982-0AA20-0		1	1 unit	42J

Overview



AS-Interface block library for SIMATIC PCS 7 in the CFC chart

More information

Technical specifications, see <https://support.industry.siemens.com/cs/de/en/ps/16719/td>
 Programming Manual for AS-Interface block library for SIMATIC PCS 7

- Version V9 with Advanced Process Library (APL), see <https://support.industry.siemens.com/cs/ww/en/view/109748320>
- Version V8 with Advanced Process Library (APL), see <https://support.industry.siemens.com/cs/ww/en/view/90690873>
- Version migration V7-V9 without Advanced Process Library, see <https://support.industry.siemens.com/cs/ww/en/view/105795722>
- Version V7 without Advanced Process Library, see <https://support.industry.siemens.com/cs/ww/en/view/46504691>

The AS-Interface block library for PCS 7 is integrated in the SIMATIC PCS 7 process control system and expands it for integration of the AS-Interface system.

As the result, the advantages of AS-Interface such as the considerable reduction of wiring outlay for distributed actuators/sensors and very simple installation can also be used in a system based on PCS 7.

The library contains blocks for accessing the I/O data of AS-i slaves, blocks for diagnostics of the AS-i system, and faceplates for the PCS 7 Maintenance Station.

Supported AS-Interface modules

The AS-Interface block library for PCS 7 can be used with the following AS-i master and link modules:

- CM AS-i Master ST (in ET 200SP station)
3RK7137-6SA00-0BC1
(engineering software V9 and V8.1 only)
- CP 343-2 (in ET 200M station) 6GK7343-2AH01-0XA0
- CP 343-2P (in ET 200M station) 6GK7343-2AH11-0XA0
- DP/AS-i Link Advanced single master 6GK1415-2BA10
- DP/AS-i Link Advanced double master 6GK1415-2BA20
- IE/AS-i Link PN IO single master 6GK1411-2AB10
(engineering software V9 or V8.1 and V8 only)
- IE/AS-i Link PN IO double master 6GK1411-2AB20
(engineering software V9 or V8.1 and V8 only)

The CM AS-i Master ST module is supported with IM 155-6 PN High Feature within an ET 200SP station interfaced via PROFINET.

The AS-i Master CP 343-2 and CP 343-2P are supported within an ET 200M station interfaced via PROFINET or PROFIBUS.

With the CM AS-i Master ST, CP 343-2 or CP 343-2P modules, digital AS-i slaves with standard addressing and extended addressing (A/B slaves, see also note under "Application") can be operated via the library.

In combination with the IE/AS-i Link PN IO and the DP/AS-i Link Advanced, it is possible to integrate digital and analog AS-i slaves with standard and extended addressing (A/B slaves).

Hardware and software requirements

The libraries require the following PCS 7 versions:

- Engineering software V9: PCS 7 version from V9
- Engineering software V8.1: PCS 7 version V8.0 SP1 update 3 and higher, can also be used for PCS 7 versions V8.1 and V8.2
- Engineering software migration V7-V9: PCS 7 version V8.0 SP1 and higher, can also be used for PCS 7 versions V8.1, V8.2 and V9
- Engineering software V7: PCS 7 versions V6.1, V7.0 or V7.1

The engineering software migration V7-V9 comprises the same interconnection logic of the CFC blocks as the engineering software V7 and is recommended for the switch to PCS 7 V8 or PCS 7 V9 with only a few adjustments required in the PCS 7 project.

The engineering software V9 and engineering software V8.1 use APL interconnection logic and are recommended for new PCS 7 projects.

Benefits

- Easy connection of AS-Interface to PCS 7
- Engineering work reduced to positioning and connecting the blocks in the CFC
- With no additional configuring steps required for connection to the PCS 7 Maintenance Station, diagnostics for the AS-i system are optimally guaranteed.

Application

The AS-Interface block library for PCS 7 is used in systems based on PCS 7 where the actuators and sensors are connected using AS-Interface.



Note:

The AS-i masters CP 343-2 and CP 343-2P do not transmit I/O data from AS-i slaves with a B address via the cyclic process image (partition), but via data records. To prevent delays in the communication of driver blocks for B slaves, we recommend avoiding the use of AS-i slaves with B addresses for PCS 7 configurations with CP 343-2 or CP 343-2P.

Parameterization, Configuration and Visualization with SIRIUS



AS-Interface block library for SIMATIC PCS 7

Selection and ordering data

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
AS-Interface block library for SIMATIC PCS 7 version V9 with Advanced Process Library (APL) NEW						
 3ZS1635-1XX03-0YA0	▶	3ZS1635-1XX03-0YA0		1	1 unit	42C
	Engineering software V9 For one engineering station (single license) including runtime software for execution of the AS blocks in an automation system (single license), German/English Scope of supply: AS blocks and faceplates for integrating AS-Interface into the PCS 7 process control system with Advanced Process Library (APL), for PCS 7 version V9 and higher Type of delivery: Software and documentation on CD, one license for one engineering station, one license for one automation system					
	▶	3ZS1635-2XX03-0YB0		1	1 unit	42C
Runtime license V9 For execution of the AS blocks in an automation system (single license) Required for using the AS blocks of the engineering software V9 on an additional automation system within a plant Type of delivery: One license for one automation system, without software and documentation						
AS-Interface block library for SIMATIC PCS 7 version V8 with Advanced Process Library (APL)						
 3ZS1635-1XX02-0YA0	▶	3ZS1635-1XX02-0YA0		1	1 unit	42C
	Engineering-Software V8.1 For one engineering station (single license) including runtime software for execution of the AS blocks in an automation system (single license), German/English Scope of supply: AS blocks and faceplates for integrating AS-Interface into the PCS 7 process control system with Advanced Process Library (APL), for PCS 7 version V8.0 SP1 and higher, also able to be used for PCS 7 versions V8.1 and V8.2 Type of delivery: Software and documentation on CD, one license for one engineering station, one license for one automation system					
	▶	3ZS1635-2XX02-0YB0		1	1 unit	42C
Runtime license V8 For execution of the AS blocks in an automation system (single license) Required for using the AS blocks of the engineering software V8 or V8.1 on an additional automation system within a plant Type of delivery: One license for one automation system, without software and documentation						

Parameterization, Configuration and Visualization with SIRIUS

AS-Interface block library for SIMATIC PCS 7

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
AS-Interface block library for SIMATIC PCS 7 version V9 or V8 without Advanced Process Library (APL)						
		Engineering software migration V7-V9	2	3ZS1635-1XX11-0YE0	1	1 unit 42C
3ZS1635-1XX11-0YE0		<p>For upgrading (migrating) an existing engineering software V7 of the AS-Interface block library for PCS 7 or for upgrading (migrating) an existing engineering software V8 or V8.1 of the AS-Interface block library for PCS 7 without APL</p> <p>For one engineering station (single license) including runtime software for execution of the AS blocks in an automation system (single license), German/English</p> <p>Conditions of use: Availability of the engineering software V7 (license) of the AS-Interface block library for PCS 7 for the PCS 7 versions V6.1, V7.0 or V7.1, or availability of the engineering software V8 or V8.1 (license) of the AS-Interface block library for PCS 7 for the PCS 7 version V8</p> <p>The engineering software migration V7-V9 can be installed directly onto a system with PCS 7 versions V9 or V8; installation of the previous version is unnecessary.</p> <p>Scope of supply: AS blocks and faceplates for integrating AS-Interface into the PCS 7 process control system, for PCS 7 versions V9 or V8.0 SP1, V8.1 and V8.2, including block library service pack SP3</p> <p>Type of delivery: Software and documentation on CD, license for upgrading an existing license for one engineering station and a plant's assigned runtime licenses</p>				
AS-Interface block library for SIMATIC PCS 7 version V7 without Advanced Process Library (APL)						
		Engineering software V7	2	3ZS1635-1XX01-0YA0	1	1 unit 42C
3ZS1635-1XX01-0YA0		<p>For one engineering station (single license) including runtime software for execution of the AS blocks in an automation system (single license), German/English</p> <p>Scope of supply: AS blocks and faceplates for integrating AS-Interface into the PCS 7 process control system, for PCS 7 versions V6.1, V7.0 or V7.1 including block library service pack SP1</p> <p>Type of delivery: Software and documentation on CD, one license for one engineering station, one license for one automation system</p>				
		Runtime license V7	2	3ZS1635-2XX01-0YB0	1	1 unit 42C
		<p>For execution of the AS blocks in an automation system (single license)</p> <p>Required for using the AS blocks of the engineering software V7 or the engineering software migration V7-V8 on an additional automation system within a plant</p> <p>Type of delivery: One license for one automation system, without software and documentation</p>				

More informationNote:

The engineering software V8.1 is available as an upgrade package for downloading from the Internet. Existing engineering software V8 + SP1 is required for installation of the upgrade package. In addition to the upgrade package, a hotfix for the Engineering Software V8+SP1 (without upgrade) is available for download, [see](https://support.industry.siemens.com/cs/ww/en/view/109480456)

<https://support.industry.siemens.com/cs/ww/en/view/109480456>.

The engineering software product package includes the associated block library service pack, if available.

The service pack for the engineering software migration V7-V9 or engineering software V7 can only be obtained in the package with the engineering software. The service pack for these two versions is not available for downloading.

For additional information on the use of analog AS-i slaves in a configuration with PCS 7 version V8.1, [see](https://support.industry.siemens.com/cs/ww/en/view/90880814)

- <https://support.industry.siemens.com/cs/ww/en/view/90880814>
- <https://support.industry.siemens.com/cs/ww/en/view/65710726>.

Parameterization, Configuration and Visualization with SIRIUS

SIRIUS Safety ES

Overview

More information

Technical specifications, see <https://support.industry.siemens.com/cs/de/en/ps/21192/td>
 SIRIUS Safety ES Programming and Operating Manual, see <https://support.industry.siemens.com/cs/ww/en/view/109444445>.

SIRIUS Safety ES is the engineering software for the configuration, startup and diagnostics of the 3RK3 Modular Safety System and 3SK2 safety relays. The software combines the configuring of the hardware, the parameterization of the safety functions, and the testing and diagnostics of the safety system.

Efficient engineering with three program versions

The SIRIUS Safety ES software program is available in three versions which differ in their user-friendliness, scope of functions and price.

SIRIUS Safety ES	Basic	Standard	Premium
Access through the local interface on the device	✓	✓	✓
Parameter assignment	✓	✓	✓
Operating	✓	✓	✓
Diagnostics	✓	✓	✓
Test	--	✓	✓
Integrated graphics editor	✓	✓	✓
Importing/exporting parameters	--	✓	✓
Comparison functions	--	✓	✓
Comfort functions	--	✓	✓
Terminal designator	--	✓	✓
Work on sub-diagrams	--	✓	✓
Standard-compliant printout according to EN ISO 7200	✓	✓	✓
Downloading parameterization via PROFIBUS	--	--	✓
Online diagnostics via PROFIBUS	--	--	✓
Creating, importing and exporting macros	--	--	✓

✓ Function available

-- Function not available

Additional functions

Language selection

The program interface language can be switched during use between German, English and French

Help function

A context-sensitive help function provides useful assistance with questions concerning the use of the program

Consistency check

A consistency check provides clear information about function assignment errors and users are taken directly to errors when the corresponding message is clicked on. Checks are carried out automatically when a project is saved and during the configuration test, but they can also be initiated manually.

Lists

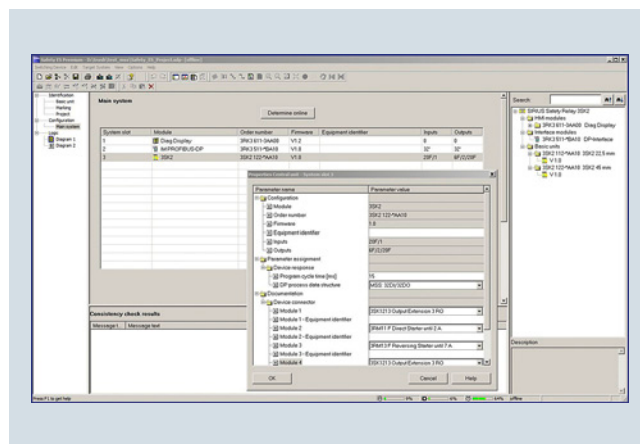
Lists of symbols and cross-references can be issued for effective processing of the project file

Standard-compliant printouts

The programs of the SIRIUS ES software family make machine documentation far easier. They enable parameterization printouts according to EN ISO 7200. The elements to be printed are easy to select and group as required.

Hardware configuration

The device configuration of the 3RK3 or 3SK2 systems is defined in the configuration dialog. The available modules are simply selected from the clearly laid out hardware catalog and positioned in the workspace. Depending on the device system used (3RK3 or 3SK2), only the permitted devices are shown in the hardware catalog in each case. In addition, in the case of the 3RK3, the quantity framework on the AS-i bus can be determined online or configured manually from the AS-i library. For each module, it is optionally possible to issue an equipment ID which is shown in the logic diagram for identification of the inputs and outputs.



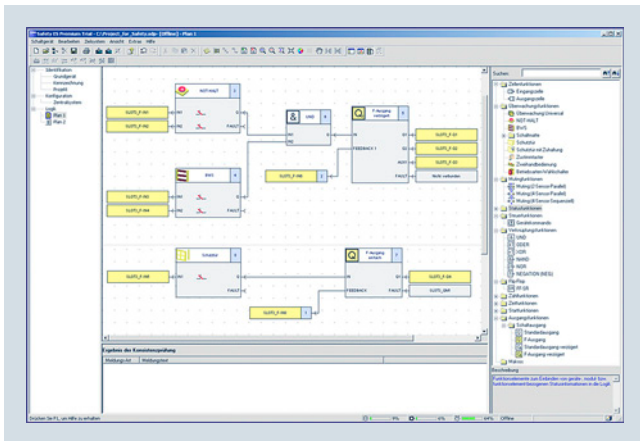
Definition of the hardware layout

Graphic parameterizing of the safety logic via drag & drop

The functionality of the safety logic is laid down with a graphics editor designed for intuitive operation. Safe monitoring functions (EMERGENCY-STOP, non-contact protective devices/light arrays, protective doors, etc.), output functions and logic functions (AND/OR operations, counting function, time functions, etc.), non-safety-related input/output functions, device status functions and control functions can be dragged from the extensive functions catalog onto the work interface by drag & drop. Depending on the version, each function has several input and output connecting points through which the functions can be interconnected by simple mouse clicks. Double-clicking on a function symbol opens the related features dialog window in which all the parameters can be displayed and configured: Scope of the function's inputs and outputs, configuring the channel type (single-/two-channel, NC contact/NO contact), activating crossover detection, defining start options, assigning the hardware inputs and outputs, etc. Of course each function can be issued with an individual name so that e.g. the position of a safety switch in the plant can be documented.

The safety logic can be divided into several diagrams in order to enable structured processing of the entire plant. The user can freely position the functions on a quasi infinitely large drawing board, whereby the connecting lines are drawn automatically. If there is not enough space, more pages are automatically added to the diagram in horizontal or vertical direction. Connecting lines extending over several pages are automatically issued with cross-references during print-out. If required in the interest of clarity, the user can divide a connecting line manually into two segments, whereby the mutual reference is marked by reference arrows. For further documentation, freely compilable comment texts can be placed at any point in the diagram. Every point in the logic diagram can be processed with ease by dragging and zooming.

Every project can be saved as a file and be password-protected from unauthorized access.



Processing the safety functions in the graphics editor

AS-Interface

Evaluation of the AS-i slaves connected to the AS-i bus is also parameterized using the tried and tested method described above.

In order to be able to use the AS-i functionalities, a 3RK3 Advanced central unit or 3RK3 ASIsafe central unit (basic/extended) must be used.

User prompting during start up and maintenance

To start up the relevant safety system, the created project file is uploaded to the device. There are two ways of doing this:

- Connect the serial (COM) or USB interface of the PC to the device using an appropriate connection cable.
- Use the DP interface to download the parameterization through any PROFIBUS node.

Access to the device can be restricted using a password concept that includes different protection levels.

After the project is loaded, the user switches the device by means of the software from configuring mode to test mode in which the safety functions can be tested.

Activating the diagnostics shows the status of the individual functions in the graphic logic diagram by means of different colors and symbols. In addition, more detailed information about each function element can be displayed in the logic diagram. For the purpose of testing the logic diagram, it is also possible to manually overwrite the signal state of each function element ("forcing").

If the test is completed successfully, the user releases the configuration and switches the device to protection mode, in which case "forcing" is automatically deactivated.

Service personnel can activate the graphic diagnostics in protection mode as well. The I&M (Identification & Maintenance) data saved in the device facilitate maintenance.

Benefits

- Convenient parameterization, operation, monitoring and testing by means of a user-friendly and clear-cut user interface
- Reliable diagnostic tool
- All functions, such as safety and logic functions, are available as modules, and are easy to link to one another
- Automatic creation of comprehensive documentation of safety functions




Parameterization, Configuration and Visualization with SIRIUS

SIRIUS Safety ES

Selection and ordering data

SIRIUS Safety ES parameterization, start-up and diagnostics software

- Delivered without PC cable


Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	d					
SIRIUS Safety ES Basic						
	Floating license for one user Engineering software in limited-function version for diagnostics purposes, software and documentation on CD, 3 languages (German/English/French), communication via system interface					
		2	3ZS1316-4CC10-0YA5 3ZS1316-4CE10-0YB5		1 1	1 unit 1 unit
3ZS1316-4CC10-0YA5						
SIRIUS Safety ES Standard						
	Floating license for one user Engineering software, software and documentation on CD, 3 languages (German/English/French), communication via system interface					
		5	3ZS1316-5CC10-0YA5 3ZS1316-5CE10-0YB5		1 1	1 unit 1 unit
3ZS1316-5CC10-0YA5						
SIRIUS Safety ES Premium						
	Floating license for one user Engineering software, software and documentation on CD, 3 languages (German/English/French), communication via PROFIBUS or system interface, online diagnostics via PROFIBUS, creating, importing and exporting macros					
		5	3ZS1316-6CC10-0YA5 3ZS1316-6CE10-0YB5		1 1	1 unit 1 unit
3ZS1316-6CC10-0YA5						

Notes:

Please order PC cable separately, [see Accessories](#).

For a description of the software versions, [see page 14/26](#).

Accessories

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
	d					
Optional accessories						
	USB PC cables For connecting to the USB interface of a PC/PG, for communication with 3RK3 and 3SK2 via the system interface, recommended for use in connection with 3RK3 and 3SK2					
			3UF7941-0AA00-0		1	1 unit
3UF7941-0AA00-0						
	5	3UF7946-0AA00-0		1	1 unit	42J
		USB/serial adapters For connecting an RS 232 PC cable to the USB interface of a PC				