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Industrial Controls

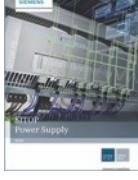
SIMOCODE pro 3UF7 Motor Management and Control Devices

Catalog
Abridged
IC 10 A

Edition
April
2017

siemens.com/simocode

Related catalogs

Industrial Controls SIRIUS	IC 10	
E86060-K1010-A101-A7-7600		
Industrial Controls SIRIUS Classic	IC 10 AO	
PDF (E86060-K1010-A191-A5-7600)		
Safety Integrated Safety Technology for Factory Automation	SI 10	
E86060-K7010-A101-A3-7600		
Industrial Communication SIMATIC NET	IK PI	
E86060-K6710-A101-B8-7600		
SIMATIC Products for Totally Integrated Automation	ST 70	
E86060-K4670-A101-B5-7600		
Low-Voltage Power Distribution and Electrical Installation Technology 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)	LV 10	
SIMOTICS GP, SD, XP, DP 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	D 81.1	
SITOP Power supply SITOP	KT 10.1	
E86060-K2410-A101-B2-7600		
SITRAIN Training for Industry	ITC	
Only available in German E86060-K6850-A101-C5		

Miscellaneous

Products for Automation and Drives CA 01
Interactive Catalog DVD



E86060-D4001-A510-D7-7600

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www.siemens.com/tst

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Industrial Controls

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Catalog Abridged IC 10 A · 04/2017

Catalog Abridged IC 10 A · 04/2017 is an abridged version of Catalog IC 10 · 2017 with updated content. This content replaces the corresponding sections of Catalog IC 10 · 2017.

Refer to the Industry Mall for current updates of Catalog IC 10:
www.siemens.com/industrymall

Please contact your local Siemens branch.

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1 Introduction

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



14 Parametrization, Configuration and Visualization with SIRIUS



15 Power Supply



16 Appendix

Industrial Controls

Ordering notes

Things you should know about Catalog Abridged IC 10 A

Catalog Abridged IC 10 A contains all selection and order-relevant data.

Standard delivery time (SD)

- | | |
|------------------|--|
| SD in days (d) | Preferred types are available immediately from stock, i.e. are dispatched within 24 hours. |
| ► Preferred type | Normal quantities of the products are usually delivered within the specified time following receipt of your order at our branch. |
| X On request | In exceptional cases, the actual delivery time may differ from that specified. |

The delivery times apply up to the ramp at Siemens AG (products ready for dispatch). The transport times depend on the destination and type of shipping. The standard transport time for Germany is one day.

The delivery times specified here represent the situation in April 2017. They are continuously optimized. For more up-to-the-minute information, please visit www.siemens.com/sirius/mall.

Price units (PU)

The price unit defines the number of units, sets or meters to which the specified price applies.

Packaging sizes (PS)

The packaging size defines the number, e.g. of units, sets or meters, contained in an outer packaging.
Only the quantity defined by the packaging size or a multiple thereof can be ordered.

For multi-unit packing and reusable packaging, see Catalog IC 10, Chapter 16 "Appendix" → "Ordering notes".

Price groups (PG)

Each product is assigned to a price group.

Example

3RA2110-0FA15-1AP0

SD: 2 working days
PG: 41D
Order quantity 1 unit or a multiple thereof

SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
d					
2	3RA2110-0FA15-1AP0			1	1 ST 41D
►	3RV1901-0H			1	10 ST 41E
5	3SU1900-0AB71-0AB0			100	10 ST 41J

3RV1901-0H

SD: Preferred type
PG: 41E
Order quantity 10 units or a multiple thereof

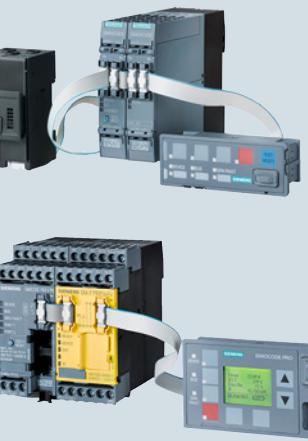
3SU1900-0AB71-0AB0

SD: 5 working days
PG: 41J
Order quantity 10 units or a multiple thereof

Dimensions

All dimensions in mm.

Monitoring and Control Devices



NEW

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

Article No.



Or directly in the Internet, e. g.
[www.siemens.com/
product?3RA1943-2C](http://www.siemens.com/product?3RA1943-2C)

Notes:

- 3RT191. function modules can be found
- in the Catalog Add-On IC 10 AO · 2016 in the Information and Download Center
- in the interactive Catalog CA 01
- in the Industry Mall

Conversion tool, e.g. from 3UG3 to 3UG4 or from 3RS17 to 3RS70 see
www.siemens.com/sirius/conversion-tool

¹⁾ See Catalog ST 70 "Products for
Totally Integrated Automation".

	Price groups	
	PG 200, 2SP, 470, 41B, 41E, 41F, 41H, 41L, 42F, 42J, 5K1, 5M2, 5P1, 5T1, 5W3	
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	SIMOCODE 3UF motor management and control devices	
	<u>SIMOCODE pro 3UF7 motor management and control devices</u>	
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10/15	Basic units NEW	
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10/20	Fail-safe expansion modules	
10/21	Accessories NEW	
10/24	<u>3UF18 current transformers for overload protection</u>	
ST 70	LOGO! logic modules¹⁾	
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3/100	SIRIUS 3RA28 solid-state time-delay auxiliary switch blocks for mounting onto 3RT2 contactors and 3RH2 contactor relays	
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	Residual current monitoring	
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SIMOCODE 3UF Motor Management and Control Devices

SIMOCODE pro 3UF7 Motor Management and Control Devices

General data

Overview



SIMOCODE pro S for efficient entry into motor management and SIMOCODE pro V for maximum functionality

More information

Home page, see www.siemens.com/simocode

Industry Mall, see www.siemens.com/product?3UF7

SIMOCODE pro is a flexible, modular motor management system for motors with constant speeds in the low-voltage performance range. It optimizes the connection between I&C and motor feeder, increases plant availability and allows significant savings to be made for installation, commissioning, operation and maintenance of a system.

SIMOCODE pro offers, for example:

- Multifunctional, solid-state full motor protection that is independent of the automation system
- Integrated control functions instead of hardware for the motor control
- Detailed operational, service and diagnostics data
- Open communication via PROFIBUS DP, PROFINET/OPC UA, Modbus RTU or EtherNet/IP
- Safety relay function for the fail-safe disconnection of motors up to SIL 3 (IEC 61508, IEC 62061) or PL e with Category 4 (EN ISO 13849-1)
- SIMOCODE ES is the software package for SIMOCODE pro parameterization, start up and diagnostics.

Device series

SIMOCODE pro C

The compact system for direct-on-line starters and reversing starters or for controlling a motor starter protector.

SIMOCODE pro S

The smart system for direct-on-line, reversing, and wye-delta starters or for controlling a motor starter protector or soft starter. Its expandability with a multifunction module provides comprehensive input/output project data volume, precise ground-fault detection via the 3UL23 residual-current transformers and temperature measurement.

SIMOCODE pro V

The variable system with all control functions and with the possibility of expanding the inputs, outputs and functions of the system at will using expansion modules

Expansion possibilities	SIMOCODE pro C PROFIBUS	SIMOCODE pro S PROFIBUS	SIMOCODE pro V ¹⁾ PROFIBUS ²⁾ Modbus RTU ²⁾	PROFINET EtherNet/IP
Operator panels	✓	✓	✓	✓
Operator panels with display	--	--	✓	✓
Current measuring modules	✓	✓	✓	✓
Current/voltage measuring modules	--	--	✓	✓
Decoupling modules	--	--	✓	✓
Expansion modules:				
• Digital modules	--	--	2	2
• Fail-safe digital modules ³⁾	--	--	1	1
• Analog modules	--	--	1	2
• Ground-fault modules	--	--	1	1
• Temperature modules	--	--	1	2
• Multifunction modules	--	1	--	--

✓ Available

-- Not available

¹⁾ Maximum of five expansion modules.

²⁾ When an operator panel with display and/or a decoupling module are used, more restrictions on the number of expansion modules connectable per basic unit must be observed, see page 10/14.

³⁾ The fail-safe digital module can be used instead of one of the two digital modules.

Per feeder each system always comprises one basic unit and one separate current measuring module. The two modules are connected together electrically through the system interface with a connection cable and can be mounted mechanically connected as a unit (one behind the other) or separately (side by side). The motor current to be monitored is decisive only for the choice of the current measuring module.

An operator panel for mounting in the control cabinet door is optionally connectable through a second system interface on the basic unit. Both the current measuring module and the operator panel are electrically supplied by the basic unit through the connection cable. More inputs, outputs and functions can be added to the SIMOCODE pro V and SIMOCODE pro S by means of optional expansion modules, thus supplementing the inputs and outputs already existing on the basic unit. With the DM-F Local and DM-F PROFIsafe fail-safe digital modules it is also possible to integrate the fail-safe disconnection of motors in the SIMOCODE pro V motor management system.

All modules are connected by connection cables. The connection cables are available in various lengths. The maximum distance between the modules (e.g. between the basic unit and the current measuring module) must not exceed 2.5 m. The total length of all the connection cables per system interface of the basic unit may be up to 3 m.

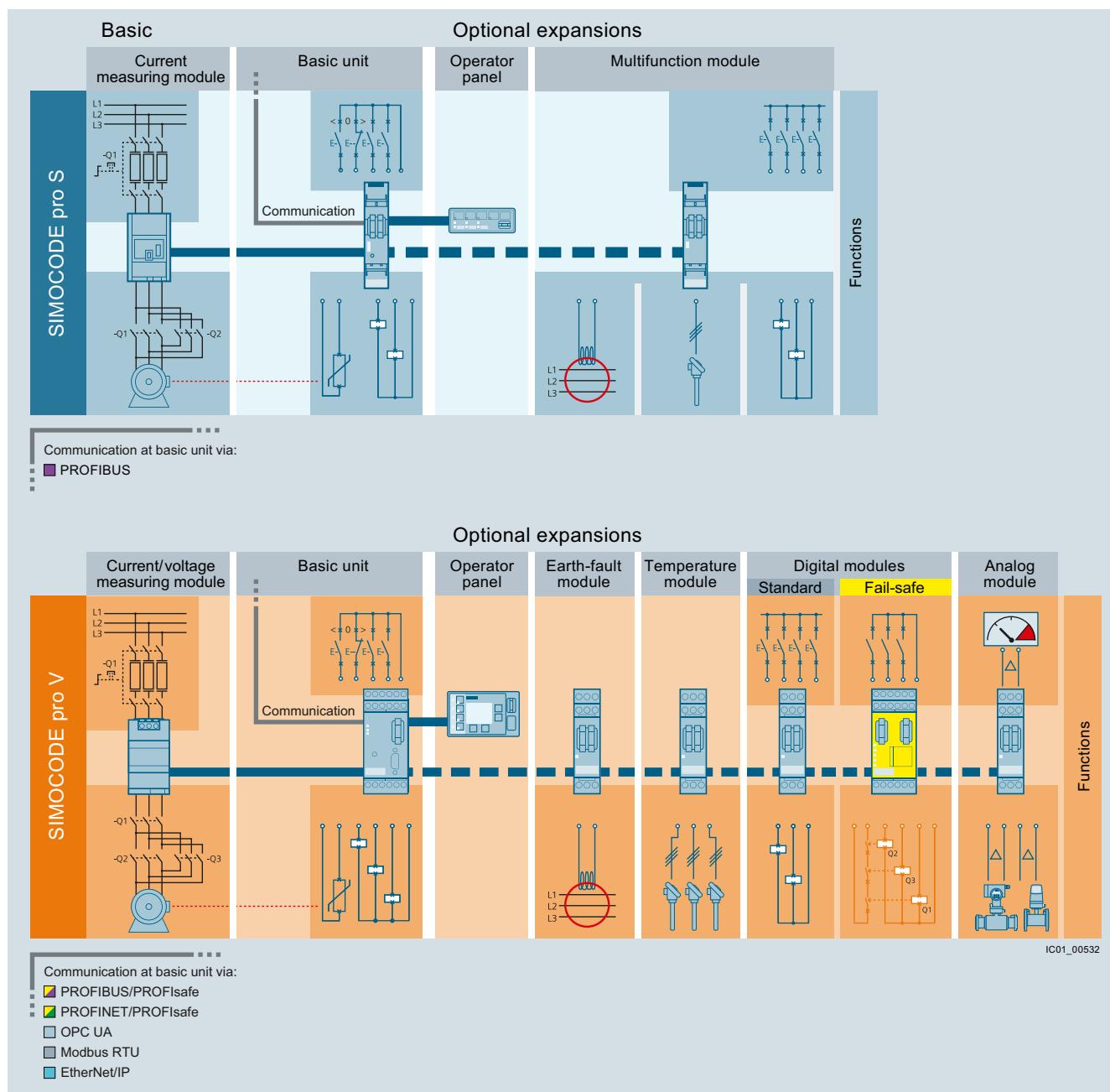
Note:

SIMOCODE pro can also be found in the TIA Selection Tool. The various system components can therefore be conveniently selected; see www.siemens.com/tia-selection-tool.

SIMOCODE 3UF Motor Management and Control Devices

SIMOCODE pro 3UF7 Motor Management and Control Devices

General data



SIMOCODE pro S and SIMOCODE pro V: system structure

Article No. scheme

Product versions	Article number
SIMOCODE pro motor management system	3UF7 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> - <input type="checkbox"/> <input type="checkbox"/> 0 <input type="checkbox"/> - 0
Type of unit/module	e.g. 0 = basic unit <input type="checkbox"/>
Functional version of the module	e.g. 20 = SIMOCODE pro S <input type="checkbox"/> <input type="checkbox"/>
Connection type of the current transformer	<input type="checkbox"/>
Voltage version	e.g. B = 24 V DC <input type="checkbox"/>
Enclosure color	e.g. 1 = titanium gray <input type="checkbox"/>
Example	3UF7 0 2 0 - 1 A B 0 1 - 0

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.

SIMOCODE 3UF Motor Management and Control Devices

SIMOCODE pro 3UF7 Motor Management and Control Devices

General data

Benefits

General customer benefits

- Integrating the whole motor feeder into the process control by means of PROFIBUS DP, PROFINET/OPC UA, Modbus RTU or EtherNet/IP significantly reduces the wiring between the motor feeder and the PLC.
- Decentralization of the automated processes by means of configurable control and monitoring functions in the feeder saves resources in the automation system and ensures full functionality and protection of the feeder even if the I&C or bus system fails
- The acquisition and monitoring of operating, service and diagnostics data in the feeder and process control system increases plant availability as well as maintenance and service-friendliness
- The high degree of modularity allows users to perfectly implement their plant-specific requirements for each motor feeder
- The SIMOCODE pro system offers functionally graded and space-saving solutions for each customer application
- The replacement of the control circuit hardware with integrated control functions decreases the number of hardware components and wiring required and in this way limits stock keeping costs and potential wiring errors
- The use of electronic full motor protection permits better utilization of the motors and ensures long-term stability of the tripping characteristic and reliable tripping even after years of service
- Thanks to the precision of the current, voltage, power and energy measurements (especially those acquired by the 2nd-generation current/voltage measuring modules), costs can be internally allocated with a high degree of accuracy.
- By virtue of its wide frequency range of 20 to 400 Hz, SIMOCODE can be used in combination with the 2nd-generation current/voltage measuring modules in a wide range of motor applications.

Multifunctional, electronic full motor protection for rated motor currents up to 820 A

SIMOCODE pro offers comprehensive protection of the motor feeder by means of a combination of different, multi-step and de-layable protection and monitoring functions:

- Inverse-time delayed electronic overload protection (CLASS 5E to 40E)
- Thermistor motor protection
- Phase failure / unbalance protection
- Stall protection
- Monitoring of adjustable limit values for the motor current
- Voltage and power monitoring
- Monitoring of the power factor (motor idling/load shedding)
- Ground-fault monitoring
- Temperature monitoring, e.g. over PT100/PT1000
- Monitoring of operating hours, downtime and number of starts etc.

Recording of measuring curves

SIMOCODE pro can record measuring curves and therefore is able, for example, to present the progression of motor current during motor start up.

Flexible motor control implemented with integrated control functions (instead of comprehensive hardware interlocks)

Many predefined motor control functions have already been integrated into SIMOCODE pro, including all necessary logic operations and interlocks:

- Overload relays
- Direct-on-line and reversing starters
- Wye/delta starters (also with direction reversal)
- Two speeds, motors with separate windings (pole-changing starter); also with direction reversal
- Two speeds, motors with separate Dahlander windings (also with direction reversal)
- Positioner actuation
- Solenoid valve actuation
- Actuation of a motor starter protector
- Soft starter actuation (also with direction reversal)

These control functions are predefined in SIMOCODE pro and can be freely assigned to the inputs and outputs of the device (including the PROFIBUS/PROFINET process image).

These predefined control functions can also be flexibly adapted to each customized configuration of a motor feeder by means of freely configurable logic modules (truth tables, counters, timers, edge evaluation, etc.) and with the help of standard functions (power failure monitoring, emergency start, external faults, etc.), without additional auxiliary relays being necessary in the control circuit.

SIMOCODE pro makes a lot of additional hardware and wiring in the control circuit unnecessary, which results in a high level of standardization of the motor feeder in terms of its design and circuit diagrams.

SIMOCODE 3UF Motor Management and Control Devices

SIMOCODE pro 3UF7 Motor Management and Control Devices

General data

Detailed operational, service and diagnostics data

SIMOCODE pro makes different operational, service and diagnostics data available and helps to detect potential faults in time and to prevent them by means of preventative measures. In the event of a malfunction, a fault can be diagnosed, localized and rectified very quickly - there are no or very short downtimes.

Operating data

- Motor switching state derived from the current flow in the main circuit
- All phase currents
- All phase voltages and phase-to-phase voltages
- Active power, apparent power and power factor
- Phase unbalance and phase sequence
- Ground-fault current
- Frequency
- Time to trip
- Motor temperature
- Remaining cooling time etc.

Service data

- Motor operating hours
- Motor stop times
- Number of motor starts
- Number of overload trips
- Interval for compulsory testing of the enabling circuits
- Energy consumed
- Internal comments stored in the device etc.

Diagnostics data

- Numerous detailed early warning and fault messages
- Internal device fault logging with time stamp
- Time stamping of freely selectable status, alarm or fault messages etc.

Easy operation and diagnostics

Operator panel

The operator panel is used to control the motor feeder and can replace all conventional pushbuttons and indicator lights to save space. It makes SIMOCODE pro or the feeder directly operable in the control cabinet. It features all the status LEDs available on the basic unit and externalizes the system interface for simple parameterization or diagnosis on a PC/PG.

Operator panel with display

As an alternative to the 3UF720 standard operator panel for SIMOCODE pro V, a 3UF721 operator panel with display is also available. This can additionally indicate current measured values, operational and diagnostics data or status information of the motor feeder at the control cabinet. The pushbuttons of the operator panel can be used to control the motor. Furthermore, it is possible to set parameters such as rated motor current, limit values, etc. directly via the operator panel with display (with SIMOCODE pro V PROFIBUS as of E15, SIMOCODE pro V Modbus RTU as of E02 and with all SIMOCODE pro V PROFINET and EtherNet/IP).

Communication

SIMOCODE pro has either an integrated PROFIBUS DP or Modbus RTU interface (SUB-D or terminal connection) or a PROFINET or EtherNet/IP interface (2 x RJ45).

Fail-safe disconnection through PROFIBUS or PROFINET with the PROFIsafe profile is also possible in conjunction with a fail-safe controller (F-CPU) and the DM-F PROFIsafe fail-safe digital module.

SIMOCODE pro PROFIBUS

SIMOCODE pro PROFIBUS supports, for example:

- Cyclic services (DPV0) and acyclic services (DPV1)
- Extensive diagnostics and hardware interrupts
- Time stamp with high timing precision (SIMATIC S7) for SIMOCODE pro V
- DPV1 communication after the Y-Link

SIMOCODE pro PROFINET

SIMOCODE pro PROFINET supports, for example:

- Line and ring bus topology thanks to an integrated switch
- Media redundancy via MRP protocol
- Operating, service and diagnostics data via standard web browser
- OPC UA server for open communication with visualization and control system
- NTP-synchronized time
- Interval function and measured values for energy management via PROFIenergy
- Module exchange without PC memory module through proximity detection
- Extensive diagnostics and maintenance alarms

System redundancy with SIMOCODE pro PROFINET

The device supports the system redundancy mechanisms of PROFINET IO and therefore can be operated directly on fault-tolerant systems such as SIMATIC S7-400 H. As such, SIMOCODE pro can provide decisive added value also for the field level of plants in which plant availability and control system redundancy are priorities.

SIMOCODE pro Modbus RTU

SIMOCODE pro Modbus RTU supports, for example:

- Communication at 1 200/2 400/4 800/9 600/19 200 or 57 600 baud
- Access to freely parameterizable process image via Modbus RTU
- Access to all operating, service and diagnostics data via Modbus RTU

SIMOCODE pro EtherNet/IP

SIMOCODE pro EtherNet/IP supports, for example:

- Line and ring bus topology thanks to an integrated switch
- Ring structures via Device Level Ring (DLR) protocol
- Operating, service and diagnostics data via standard web browser
- NTP-synchronized time
- Parameter assignment via SIMOCODE ES V14 – via local device interface and Ethernet

SIMOCODE 3UF Motor Management and Control Devices

SIMOCODE pro 3UF7 Motor Management and Control Devices

General data

Notes on safety

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 on industrial security, see www.siemens.com/industrialsecurity.

SIMOCODE pro motor management and control devices with communication function, [see from page 10/15](#).

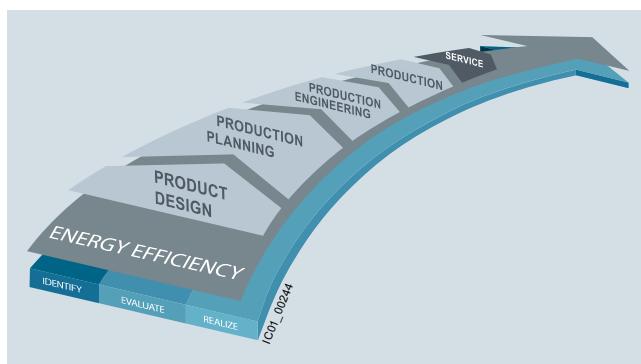
Accessories, [see from page 10/21](#).

For more information, e.g. on software, [see pages 14/20 and 14/24](#).

Autonomous operation

An essential feature of SIMOCODE pro is the autonomous execution of all protection and control functions, even when communication to the I&C system is interrupted. This means that even in the event of bus system or automation system failure, full functionality of the feeder is ensured or a specific behavior can be parameterized in case of such a fault, e.g. targeted shutdown of the feeder or execution of particular parameterized control mechanisms (such as reversal of the direction of rotation).

Advantages through energy efficiency



Overview of the energy management process

We offer you a unique portfolio for efficient energy management in the industry – a process that is used to optimize the energy requirements. We split up our industrial energy management into three phases – identify, evaluate, and realize – and we support you with the appropriate hardware and software solutions in every process phase.

The innovative SIRIUS industrial controls products can also make a major contribution to the energy efficiency of a plant (www.siemens.com/sirius/energysaving).

The SIMOCODE pro 3UF7 motor management system makes the following contribution to the energy efficiency of the plant as a whole:

- Energy consumption:
Clear display of the energy consumption of a motor feeder or process element by means of the acquisition and transmission of all operating and consumption data, such as current, voltage, active and reactive power, energy consumption, motor temperature, etc.
- Energy management:
Evaluation of measured energy values (e.g. limit value monitoring) with exporting of local or central actions (= forwarding to higher-level)
- PROFlenergy:
SIMOCODE pro V PROFINET supports the PROFlenergy functions. Reduced energy consumption thanks to automatic disconnection in the intervals and forwarding of the measured values for higher-level energy management systems.

Advantages from integrated energy management



As an integrated option for the TIA Portal, the SIMATIC Energy Suite couples energy management with automation efficiently, making energy consumption at your production facility transparent.

Thanks to the simplified configuration of energy-measuring components, e.g. SIMOCODE pro V, configuration effort is also clearly reduced.

Thanks to the end-to-end connection with higher-level energy management systems or cloud-based services, you can seamlessly expand the recorded energy data to create a cross-site energy management system.

The advantages at a glance:

- Automatic generation of energy management data
- Integration into TIA Portal and into automation
- Simple configuration

For more information, [see www.siemens.com/energysuite](http://www.siemens.com/energysuite).

SIMOCODE 3UF Motor Management and Control Devices

SIMOCODE pro 3UF7 Motor Management and Control Devices

General data

Application

SIMOCODE pro is often used for automated processes where plant downtimes are very expensive (e.g. chemical, oil/gas, water/wastewater, steel or cement industries) and where it is important to prevent plant downtimes through detailed operational, service and diagnostics data or to locate faults very quickly when they occur.

SIMOCODE pro is modular and space-saving and suited especially for operation in motor control centers (MCCs) in the process industry and for power plant technology.

Applications

Protection and control of motors in hazardous areas for types of protection EEx e/d according to ATEX guideline 94/9/EC

- With heavy starting (paper, cement, metal and water industries)
- In high-availability plants (chemical, oil, raw material processing industries, power plants)

Use of SIMOCODE pro 3UF7 with IE3/IE4 motors

Note:

When using the SIMOCODE pro 3UF7 in conjunction with highly energy-efficient IE3/IE4 motors, please observe the information on dimensioning and configuring; see Application Manual "SIRIUS Controls with IE3/IE4 motors", <https://support.industry.siemens.com/cs/ww/en/view/94770820>.

For more information, see Catalog IC 10, Preface.

Safety technology for SIMOCODE pro

The safe disconnection of motors in the process industry is becoming increasingly important as the result of new and revised standards and requirements in the safety technology field.

With the DM-F Local and DM-F PROFIsafe fail-safe expansion modules it is easy to integrate functions for fail-safe disconnection into the SIMOCODE pro V motor management system while retaining service-proven concepts. The strict separation of safety functions and operational functions proves particularly advantageous for planning, configuring and construction. Seamless integration in the motor management system leads to greater transparency for diagnostics and during operation of the system.

Suitable components for this purpose are the DM-F Local and DM-F PROFIsafe fail-safe expansion modules, depending on the requirements:

- The DM-F Local fail-safe digital module for when direct assignment between a fail-safe hardware shutdown signal and a motor feeder is required, or
- The DM-F PROFIsafe fail-safe digital module for when a fail-safe controller (F-CPU) creates the signal for disconnection and transmits it in a fail-safe manner through PROFIBUS/PROFIsafe or PROFINET/PROFIsafe to the motor management system

Technical specifications

More information

Technical specifications, see https://support.industry.siemens.com/cs/ww/en/ps/16337/td	"SIRIUS Controls with IE3/IE4 motors" Application Manual, see https://support.industry.siemens.com/cs/ww/en/view/94770820
SIMOCODE pro - Manual Collection see https://support.industry.siemens.com/cs/ww/en/view/109743951	Selection data for type-tested assemblies/load feeders
"SIMOCODE pro Safety Fail-Safe Digital Modules" System Manual, see https://support.industry.siemens.com/cs/ww/en/view/50564852	<ul style="list-style-type: none"> Manual "Configuring SIRIUS", see https://support.industry.siemens.com/cs/ww/en/view/40625241 Manual "Configuring SIRIUS Innovations", see https://support.industry.siemens.com/cs/ww/en/view/39714188

General data		3UF7
Type		
Permissible ambient temperature		
• During operation	°C	-25 ... +60; 3UF721: 0 ... +60
• During storage and transport	°C	-40 ... +80; 3UF721: -20 ... +70
Degree of protection (acc. to IEC 60529)		
• Measuring modules with busbar connection		IP00
• Operator panel (front) and door adapter (front) with cover		IP54
• Other components		IP20
Shock resistance (sine pulse)	g/ms	15/11
Mounting position		Any
Frequency	Hz	50/60 ± 5 %
EMC interference immunity (according to IEC 60947-1)		Corresponds to degree of severity 3
• Conducted interference, burst acc. to IEC 61000-4-4	kV	2 (power ports)
	kV	1 (signal ports)
	V	10
• Conducted interference, high frequency acc. to IEC 61000-4-6		2 (line to ground); 3UF7320-1AB, 3UF7330-1AB: 1 (line to ground)
• Conducted interference, surge acc. to IEC 61000-4-5	kV	1 (line to line); 3UF7320-1AB, 3UF7330-1AB: 0.5 (line to line)
• Electrostatic discharge, ESD acc. to IEC 61000-4-2	kV	8 (air discharge); 3UF7020: operator input during operation only on the front
• Field-related interference acc. to IEC 61000-4-3	kV	6 (contact discharge); 3UF721: 4 (contact discharge)
V/m	10	
EMC emitted interference (according to IEC 60947-1)		EN 55011/EN 55022 (CISPR 11/CISPR 22) (Corresponds to degree of severity A)
• Conducted and radiated interference emission		All circuits in SIMOCODE pro are safely separated from each other according to IEC 60947-1, i.e. they are designed with doubled creepage paths and clearances. In this context, compliance with the instructions in the test report "Safe Isolation" No. 2668 is required.
Protective separation (acc. to IEC 60947-1)		

SIMOCODE 3UF Motor Management and Control Devices

SIMOCODE pro 3UF7 Motor Management and Control Devices

General data

Basic units				
Type	3UF7000-1AU00-0, 3UF7010-1AU00-0, 3UF7000-1AB00-0, 3UF7010-1AB00-0, 3UF7011-1AU00-0, 3UF7020-1AU01-0, 3UF7011-1AB00-0, 3UF7020-1AB01-0, 3UF7012-1AU00-0, 3UF7013-1AU00-0, 3UF7012-1AB00-0, 3UF7013-1AB00-0			
Control circuit				
Rated control supply voltage U_s (acc. to IEC 61131-2)	110 ... 240 AC/DC; 50/60 Hz		24 V DC	
Operating range				
• SIMOCODE pro C (3UF7000) and SIMOCODE pro V PROFIBUS (3UF7010) SIMOCODE pro V Modbus RTU (3UF7012)	0.85 ... 1.1 $\times U_s$		0.80 ... 1.2 $\times U_s$	
• SIMOCODE pro V PROFINET (3UF7011), SIMOCODE pro V EtherNet/IP (3UF7013) and SIMOCODE pro S (3UF7020)	0.85 ... 1.1 $\times U_s$	0.85 ... 1.1 $\times U_s$	0.80 ... 1.2 $\times U_s$	0.85 ... 1.2 $\times U_s$
- Operation				
- Start up				
Power consumption				
• SIMOCODE pro C (3UF7000) and SIMOCODE pro S (3UF7020)	7 VA/5 W		5 W	
• SIMOCODE pro V PROFIBUS (3UF7010) and SIMOCODE pro V Modbus RTU (3UF7012) including two connected expansion modules	10 VA/7 W		7 W	
• SIMOCODE pro V PROFIBUS E15/V 4.0 (3UF7010-1A.00-0 -Z B01), incl. two connected expansion modules	7 VA/5 W		4 W	
• SIMOCODE pro V PROFINET (3UF7011) and SIMOCODE pro V EtherNet/IP (3UF7013), including two connected expansion modules	11 VA/8 W		8 W	
Rated insulation voltage U_i	V	300 (at pollution degree 3)		
Rated impulse withstand voltage U_{imp}	kV	4		
Relay outputs				
• Number		3 monostable relay outputs		
- SIMOCODE pro C, SIMOCODE pro V		2 monostable relay outputs		
- SIMOCODE pro S				
• Specified short-circuit protection for auxiliary contacts (relay outputs)				
- Fuse links		6 A operational class gG, 10 A quick-response (IEC 60947-5-1)		
- Miniature circuit breaker		1.6 A, C characteristic (IEC 60947-5-1); 6 A, C characteristic ($I_k < 500$ A)		
• Rated uninterrupted current	A	6		
• Rated switching capacity				
- AC-15		6 A/24 V AC	6 A/120 V AC	3 A/230 V AC
- DC-13		2 A/DC 24 V	0.55 A/DC 60 V	0.25 A/DC 125 V
Inputs (binary)		4 inputs supplied internally by the device electronics (with 24 V DC) and connected to a common potential		
Thermistor motor protection (binary PTC)				
• Summation cold resistance	kΩ	≤ 1.5		
• Response value	kΩ	3.4 ... 3.8		
• Return value	kΩ	1.5 ... 1.65		

2nd generation current/voltage measuring modules						
Type		3UF7110-1AA01-0	3UF7111-1AA01-0	3UF7112-1AA01-0	3UF7113-1.A01-0	3UF7114-1BA01-0
Main circuit						
Set current I_e	A	0.3 ... 4	3 ... +40	10 ... 115	20 ... 200	63 ... 630
Rated insulation voltage U_i	V	690				
Rated operational voltage U_o	V	690				
Rated impulse withstand voltage U_{imp}	kV	6				
Rated frequency	Hz	50/60				
Type of current		Three-phase current				
Short circuit		Additional short-circuit protection is required in the main circuit				
Typical voltage measuring range						
• Phase-to-phase voltage/line-to-line voltage (e.g. $U_{L1 L2}$)	V	110 ... 690				
• Phase voltage (e.g. $U_{L1 N}$)	V	65 ... 400				
Accuracy at 25 °C, 50/60 Hz						
Valid for current range and for voltage range	A	0.25 ... 8	7.5 ... 230	15 ... 400	15 ... 400	47 ... 1260
• Current measurement	%	1.5				
• Voltage measurement	%	1.5				
• Power factor measurement (p.f. ≥ 0.5)	%	1.5				
• Apparent power measurement (p.f. ≥ 0.5)	%	3				
• Active power measurement (p.f. ≥ 0.5)	%	5				
• Energy measurement (p.f. ≥ 0.5)	%	5				
• Frequency measurement (p.f. ≥ 0.5)	%	1.5				
Notes on voltage measurement						
• Supply lines for voltage measurement		In the supply lines from the main circuit for voltage measurement of SIMOCODE pro it may be necessary to provide additional line protection!				

SIMOCODE 3UF Motor Management and Control Devices

SIMOCODE pro 3UF7 Motor Management and Control Devices

General data

Current measuring modules or current/voltage measuring modules						
Type	3UF7110-1AA00-0	3UF7111-1AA00-0	3UF7112-1AA00-0	3UF7113-1.A00-0	3UF7114-1BA00-0	
Main circuit						
Set current I_e	A	0.3 ... 3	2.4 ... 25	10 ... 100	20 ... 200	
Rated insulation voltage U_i	V	690; 3UF7103 and 3UF7104: 1 000	(at pollution degree 3)			
Rated operational voltage U_e	V	690				
Rated impulse withstand voltage U_{imp}	kV	6; 3UF7103 and 3UF7104: 8				
Rated frequency	Hz	50/60				
Type of current	Three-phase current					
Short circuit	Additional short-circuit protection is required in the main circuit					
Accuracy of current measurement (in the range of 1 x minimum current setting I_u to 8 x max. current setting I_o)	%	± 3				
Typical voltage measuring range						
• Phase-to-phase voltage/line-to-line voltage (e.g. $U_{L1} L_2$)	V	110 ... 690				
• Phase voltage (e.g. $U_{L1} N$)	V	65 ... 400				
Accuracy						
• Voltage measurement (phase voltage U_L in the range 230 ... 400 V)	%	± 3 (typical)				
• Power factor measurement (in the rated load range PF ($\cos \varphi$) = 0.4 ... 0.8)	%	± 5 (typical)				
• Apparent power measurement (in the rated load range)	%	± 5 (typical)				
Notes on voltage measurement						
• In insulated, high-resistance or asymmetrically grounded forms of power supply system and for single-phase systems	In these networks the current/voltage measuring module can be used only with an upstream decoupling module on the system interface.					
• Supply lines for voltage measurement	In the supply lines from the main circuit for voltage measurement of SIMOCODE pro it may be necessary to provide additional line protection!					
Digital modules or multifunction modules						
Type	3UF7300, 3UF7310, 3UF7600					
Control circuit						
Rated insulation voltage U_i	V	300 (at pollution degree 3)				
Rated impulse withstand voltage U_{imp}	kV	4				
Relay outputs						
• Number	2 monostable or bistable relay outputs (depending on the version)					
• Specified short-circuit protection for auxiliary contacts (relay outputs)	6 A operational class gG; 10 A quick-response (IEC 60947-5-1) 1.6 A, C characteristic (IEC 60947-5-1); 6 A, C characteristic ($I_k < 500$ A)					
- Fuse links	6					
- Miniature circuit breaker	6 A/24 V AC 6 A/120 V AC 3 A/230 V AC 2 A/24 V DC 0.55 A/60 V DC 0.25 A/125 V DC					
• Rated uninterrupted current	A					
• Rated switching capacity	AC-15 DC-13					
Inputs (binary)	4 inputs, electrically isolated, supplied externally with 24 V DC or 110 ... 240 V AC/DC depending on the version, connected to a common potential					
Ground-fault modules or multifunction modules						
Type	3UF7510, 3UF7600					
Control circuit						
Connectable residual-current transformer	3UL23					
Type of current for monitoring	Type A (AC and pulsating DC residual currents)					
Adjustable response value	30 mA ... 40 A					
Relative measurement error	%	7.5				
Temperature modules or multifunction modules						
Type	3UF7600, 3UF7700					
Sensor circuit						
Number of temperature sensors	3 temperature sensors 1 temperature sensor					
• 3UF7700						
• 3UF7600						
Typical sensor current	mA					
• PT100	1 (typical)					
• PT1000/KTY83/KTY84/NTC	0.2 (typical)					
Open-circuit/short-circuit detection						
• Sensor type	PT100/PT1000 KTY83-110 KTY84 NTC					
- Open circuit	✓					
- Short circuit	✓					
- Measuring range	°C	-50 ... +500	-50 ... +175	-40 ... +300	80 ... 160	
Measuring accuracy at 20 °C ambient temperature (T20)	K	< ± 2				
Deviations due to ambient temperature (in % of the measuring range)	%	0.05 per K deviation from T20				
Conversion time	ms	500				
Connection type	Two- or three-wire connection					
✓ Detection possible	-- Detection not possible					

SIMOCODE 3UF Motor Management and Control Devices

SIMOCODE pro 3UF7 Motor Management and Control Devices

General data

Analog module					
Type	3UF74				
Control circuit					
Inputs					
• Channels	mA				
• Parameterizable measuring ranges	0/4 ... 20				
• Shielding	Up to 30 m shield recommended, from 30 m shield required				
• Max. input current (destruction limit)	mA				
• Accuracy	40				
• Input resistance	%				
• Conversion time	±1				
• Resolution	Ω				
• Open-circuit detection	rms				
	Bit				
	150				
	12				
	With measuring range 4 ... 20 mA				
Outputs					
• Channels	mA				
• Parameterizable output range	1				
• Shielding	0/4 ... 20				
• Max. voltage at output	V DC				
• Accuracy	Up to 30 m shield recommended, from 30 m shield required				
• Max. output load	30				
• Conversion time	%				
• Resolution	±1				
• Short-circuit proof	Ω				
	500				
	ms				
	25				
	Bit				
	12				
	Yes				
Connection type					
Electrical separation of inputs/output to the device electronics					
No					
Fail-safe digital modules					
Type	3UF7320-1AB00-0 3UF7320-1AU00-0 3UF7330-1AB00-0 3UF7330-1AU00-0				
Control circuit					
Rated control supply voltage U_s	V	24 DC	110 ... 240 AC/DC; 50/60 Hz	24 DC	110 ... 240 AC/DC; 50/60 Hz
Power consumption	3 CO	9.5 VA/4.5 W	4 W	11 VA/5.5 W	
Rated insulation voltage	V	300			
Rated impulse withstand voltage U_{imp}	kV	4			
Relay outputs					
• Number		2 relay enabling circuits, 2 relay outputs			
Version of the fuse link	A	4, operational class gG			
For short-circuit protection of the relay enabling circuit					
Rated uninterrupted current	A	5			
Rated switching capacity					
• AC-15		3 A/AC 24 V; 3 A/AC 120 V; 1.5 A/AC 230 V			
• DC-13		4 A/24 V DC; 0.55 A/60 V DC; 0.22 A/125 V DC			
Inputs (binary)		5 (with internal power supply from the device electronics)			
Cable length					
• Between sensor/start signal and evaluation electronics	m	1500			
• For further digital signals	m	300			
Safety data¹⁾					
SIL level max. according to IEC 61508		3			
Performance level PL according to EN ISO 13849-1		e			
Category according to EN ISO 13849-1		4			
Stop category according to EN 60204-1		0			
Probability of a dangerous failure (at 40 °C) for SIL 3 applications					
• Per hour (PFH_d) at a high demand rate according to IEC 62061	1/h	4.5×10^{-9}	4.6×10^{-9}	4.4×10^{-9}	
• On demand (PFD_{avg}) at a low demand rate according to IEC 61508		5.4×10^{-6}	5.5×10^{-6}	5.1×10^{-6}	
T1 value for proof-test interval or service life according to IEC 61508	a	20			

¹⁾ More safety data, see system manual "SIMOCODE pro Safety Fail-Safe Digital Modules", <https://support.industry.siemens.com/cs/ww/en/view/50564852>.

SIMOCODE 3UF Motor Management and Control Devices

SIMOCODE pro 3UF7 Motor Management and Control Devices

General data

More information

Configuration instructions when using an operator panel with display and/or a decoupling module with SIMOCODE pro V with PROFIBUS or Modbus RTU

If you want to use an operator panel with display and/or a decoupling module in the SIMOCODE pro V system with PROFIBUS (product version earlier than E15) or Modbus RTU (product version earlier than E02), configuration instructions concerning the type and number of connectable expansion modules must be observed.

The following tables show the maximum possible configuration of the expansion modules for the various combinations. These are also conveniently stored in the TIA Selection Tool. See www.siemens.com/tia-selection-tool.

The DM-F Local and DM-F PROFIsafe fail-safe expansion modules behave in this connection like digital modules for standard applications.

Use of an operator panel with display

Digital module 1	Digital module 2	Analog module	Temperature module	Ground-fault module
Only operator panel with display for SIMOCODE pro V (24 V DC or 110 ... 240 V AC/DC)				

Max. four expansion modules can be used

Digital module 1	Digital module 2	Analog module	Temperature module	Ground-fault module
Operator panel with display and current/voltage measurement with SIMOCODE pro V (110 ... 240 V AC/DC)				

Max. three expansion modules can be used or:

--	--	✓	✓	--
----	----	---	---	----

✓ Available

-- Not available

Use of a decoupling module (voltage measurement in insulated networks)

Digital module 1	Digital module 2	Analog module	Temperature module	Ground-fault module
SIMOCODE pro V (24 V DC)				
✓ ¹⁾	✓ ¹⁾	✓	✓	✓
SIMOCODE pro V (110 ... 240 V AC/DC)				
✓	✓	--	✓	✓
✓ ¹⁾	✓ ¹⁾	✓	✓	--
✓	--	✓	✓	--
✓	--	✓	--	✓

✓ Available

-- Not available

1) No bistable relay outputs and no more than five of seven relay outputs active simultaneously (> 3 s).

Use of a decoupling module (voltage measurement in insulated networks) in combination with an operator panel with display

Digital module 1	Digital module 2	Analog module	Temperature module	Ground-fault module
SIMOCODE pro V (24 V DC)				
✓	--	✓	✓	✓
✓	✓	--	✓	✓
SIMOCODE pro V (110 ... 240 V AC/DC)				
✓ ¹⁾	--	✓	✓	✓
✓	✓	--	--	--
✓ ²⁾	✓ ²⁾	✓ ³⁾	--	--
✓	--	--	✓	✓

✓ Available

-- Not available

1) No bistable relay outputs and no more than three of five relay outputs active simultaneously (> 3 s).

2) No bistable relay outputs and no more than five of seven relay outputs active simultaneously (> 3 s).

3) Analog module output is not used.

Configuration instructions for the use of a fail-safe expansion module

Fail-safe digital module	Digital module 2	Analog module	Temperature module	Ground-fault module
DM-F Local				
Max. four expansion modules can be used				

DM-F PROFIsafe

Max. three expansion modules can be used or:

✓	✓	✓	✓	--
---	---	---	---	----

✓ Available

-- Not available

Protective separation

All circuits in SIMOCODE pro are safely isolated from each other in accordance with IEC 60947-1. That is, they are designed with double creepages and clearances. In the event of a fault, therefore, no parasitic voltages can be formed in neighboring circuits. The instructions of Test log No. 2668 must be complied with.

Types of protection EEx e and EEx d

The overload protection and the thermistor motor protection of the SIMOCODE pro system comply with the requirements for overload protection of explosion-proof motors to the type of protection:

- EEx d "flameproof enclosure" e.g. according to IEC 60079-1
- EEx e "increased safety" e.g. according to IEC 60079-7

When using SIMOCODE pro devices with a 24 V DC control voltage, electrical separation must be ensured using a battery or a safety transformer according to IEC 61558-2-6.

EC type-examination certificate BVS 06 ATEX F 001

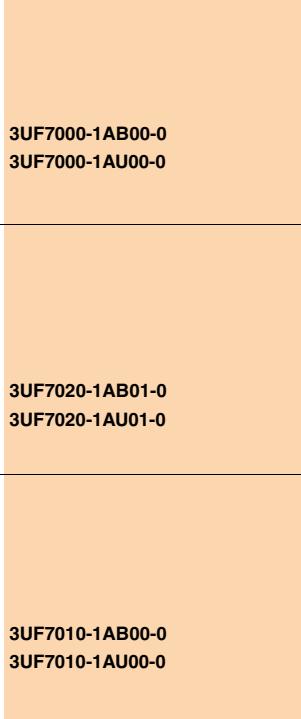
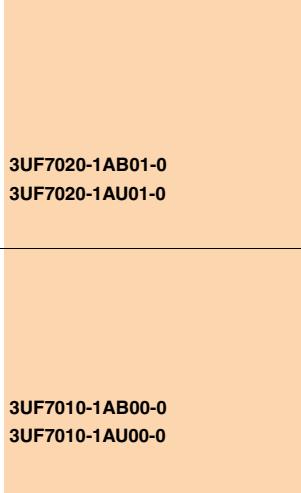
Test report: BVS PP 05.2029 EG.

SIMOCODE 3UF Motor Management and Control Devices

SIMOCODE pro 3UF7 Motor Management and Control Devices

IE3/IE4 ready Basic units

Selection and ordering data

	Version	SD	Screw terminals	PU (UNIT, SET, M)	PS*	PG	
	d		Article No. 	Price per PU			
SIMOCODE pro PROFIBUS							
	SIMOCODE pro C PROFIBUS DP interface, 12 Mbps, RS 485 4 I/3 O freely assignable, input for thermistor connection, monostable relay outputs Rated control supply voltage U_s : • 24 V DC • 110 ... 240 V AC/DC			3UF7000-1AB00-0 3UF7000-1AU00-0	1 1	1 unit 1 unit	42J 42J
3UF7000-1A.00-0							
	SIMOCODE pro S¹⁾ PROFIBUS DP interface, 1.5 Mbps, RS 485 4 I/2 O freely assignable, input for thermistor connection, monostable relay outputs, can be expanded by a multifunction module Rated control supply voltage U_s : • 24 V DC • 110 ... 240 V AC/DC			3UF7020-1AB01-0 3UF7020-1AU01-0	1 1	1 unit 1 unit	42J 42J
3UF7020-1A.01-0							
	SIMOCODE pro V²⁾ PROFIBUS DP interface, 12 Mbps, RS 485 4 I/3 O freely assignable, input for thermistor connection, monostable relay outputs, can be expanded by expansion modules Rated control supply voltage U_s : • 24 V DC • 110 ... 240 V AC/DC			3UF7010-1AB00-0 3UF7010-1AU00-0	1 1	1 unit 1 unit	42J 42J
3UF7010-1A.00-0							
SIMOCODE pro PROFINET							
	SIMOCODE pro V PROFINET ETHERNET/PROFINET IO, OPC UA server and web server, 100 Mbps, 2 x connection to bus through RJ45, PROFINET system redundancy, media redundancy protocol, 4 I/3 O freely assignable, input for thermistor connection, monostable relay outputs, can be expanded by expansion modules, web server in German/English/Chinese/Russian Rated control supply voltage U_s : • 24 V DC • 110 ... 240 V AC/DC			3UF7011-1AB00-0 3UF7011-1AU00-0	1 1	1 unit 1 unit	42J 42J
3UF7011-1A.00-0							

¹⁾ The connection cable to the current measuring module must be at least 30 cm.

²⁾ For the use of 2nd-generation current/voltage measuring modules, SIMOCODE pro V PROFIBUS with product version E15 (V 4.0) must be ordered. This version does not have marine certification or CCC approval and can be ordered at no extra charge. The article number must be supplemented by "Z" and the order code "B01", e.g. **3UF7010-1A.00-0-Z B01**.

SIMOCODE 3UF Motor Management and Control Devices

SIMOCODE pro 3UF7 Motor Management and Control Devices

Basic units IE3/IE4 ready

Version	SD	Screw terminals	PU (UNIT, SET, M)	PS*	PG	
d		Article No.	Price per PU			
SIMOCODE pro Modbus RTU						
		SIMOCODE pro V Modbus RTU¹⁾ Modbus RTU interface, 57.6 kbp, RS485, 4 I/3 O freely parameterizable, input for thermistor connection, monostable relay outputs, can be expanded using expansion modules Rated control supply voltage U_s : <ul style="list-style-type: none">• 24 V DC• 110 ... 240 V AC/DC	3UF7012-1AB00-0 3UF7012-1AU00-0	1 1	1 unit 1 unit	42J 42J
3UF7012-1A.00-0						
SIMOCODE pro EtherNet/IP NEW						
		SIMOCODE pro V EtherNet/IP¹⁾ EtherNet/IP interface, web server, 100 Mbps, 2 x connection to bus through RJ45, media redundancy DLR, 4 I/3 O freely parameterizable, input for thermistor connection, monostable relay outputs, can be expanded using expansion modules, web server in German/English/Chinese/Russian Rated control supply voltage U_s : <ul style="list-style-type: none">• 24 V DC• 110 ... 240 V AC/DC	3UF7013-1AB00-0 3UF7013-1AU00-0	1 1	1 unit 1 unit	42J 42J
3UF7013-1A.00-0						
SIMOCODE pro current or current/voltage measuring modules						
		Current measuring modules <ul style="list-style-type: none">• Straight-through transformers 0.3 ... 3 45 ▶ 3UF7100-1AA00-0 2.4 ... 25 45 ▶ 3UF7101-1AA00-0 10 ... 100 55 ▶ 3UF7102-1AA00-0 20 ... 200 120 ▶ 3UF7103-1AA00-0• Bus connections 20 ... 200 120 ▶ 3UF7103-1BA00-0 63 ... 630 145 ▶ 3UF7104-1BA00-0		1 1 1 1 1 1	1 unit 1 unit 1 unit 1 unit 1 unit 1 unit	42J 42J 42J 42J 42J 42J
3UF7100-1AA00-0						
		2nd generation current/voltage measuring modules for SIMOCODE pro V¹⁾ NEW Voltage measurement up to 690 V, measured values with increased accuracy, power, power factor and active current monitoring <ul style="list-style-type: none">• Straight-through transformers 0.3 ... 4 45 ▶ 3UF7110-1AA01-0 3 ... +40 45 ▶ 3UF7111-1AA01-0 10 ... 115 55 ▶ 3UF7112-1AA01-0 20 ... 200 120 ▶ 3UF7113-1AA01-0• Bus connections 20 ... 200 120 ▶ 3UF7113-1BA01-0 63 ... 630 145 ▶ 3UF7114-1BA01-0		1 1 1 1 1 1	1 unit 1 unit 1 unit 1 unit 1 unit 1 unit	42J 42J 42J 42J 42J 42J
3UF7110-1AA01-0						
		Note: The 2nd-generation current/voltage measuring modules require SIMOCODE pro V PROFIBUS basic units as of product version E15 (Z version), SIMOCODE pro V PROFINET as of product version E10 or SIMOCODE pro V EtherNet/IP as of product version E01, see page 10/15 and above.				
3UF7113-1AA01-0						
		Current/voltage measuring modules for SIMOCODE pro V Voltage measurement up to 690 V If required in connection with a decoupling module <ul style="list-style-type: none">• Straight-through transformers 0.3 ... 3 45 ▶ 3UF7110-1AA00-0 2.4 ... 25 45 ▶ 3UF7111-1AA00-0 10 ... 100 55 ▶ 3UF7112-1AA00-0 20 ... 200 120 ▶ 3UF7113-1AA00-0• Bus connections 20 ... 200 120 ▶ 3UF7113-1BA00-0 63 ... 630 145 ▶ 3UF7114-1BA00-0		1 1 1 1 1 1	1 unit 1 unit 1 unit 1 unit 1 unit 1 unit	42J 42J 42J 42J 42J 42J
3UF7110-1AA00-0						

¹⁾ The SIMOCODE ES (TIA Portal) V14 software is necessary for parameterization, see page 14/20.

Note:

SIMOCODE pro V basic unit in a hardened version via SIPLUS extreme upon request.

SIMOCODE 3UF Motor Management and Control Devices

SIMOCODE pro 3UF7 Motor Management and Control Devices

IE3/IE4 ready Basic units

Version	Current setting	Width	SD	Screw terminals	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG	
		A	mm	d						
SIMOCODE pro decoupling modules										
	Decoupling module For connecting upstream from a current/voltage measuring module on the system interface when using voltage detection in insulated, high-resistance or asymmetrically grounded systems and in single-phase systems		2	3UF7150-1AA00-0				1	1 unit	42J
3UF7150-1AA00-0										
SIMOCODE pro operator panels										
	Operator panels Installation in control cabinet door or front plate, for plugging into all SIMOCODE pro basic units, ten LEDs for status indication and user-assignable buttons for controlling the motor									
	• Titanium gray			▶	3UF7200-1AA01-0			1	1 unit	42J
3UF7200-1AA01-0										
	• Light gray			▶	3UF7200-1AA00-0			1	1 unit	42J
3UF7200-1AA00-0										
Operator panels for SIMOCODE pro V										
	Installation in control cabinet door or front plate, for plugging into SIMOCODE pro V and SIMOCODE pro V PN, seven LEDs for status indication and user-assignable buttons for controlling the motor, multilingual display, e.g. for indication of measured values, status information or fault messages									
	• Titanium gray NEW - English/German/French/Spanish/Portuguese/ Italian/Polish/Finnish - English/Chinese/Russian/Korean			▶	3UF7210-1AA01-0			1	1 unit	42J
3UF7210-1.A01-0										
	• Light gray - English/German/French/Spanish/Portuguese/ Italian/Polish/Finnish - English/Chinese/Russian/Korean			▶	3UF7210-1AA00-0			1	1 unit	42J
3UF7210-1.A00-0										

SIMOCODE 3UF Motor Management and Control Devices

SIMOCODE pro 3UF7 Motor Management and Control Devices

Expansion modules

Selection and ordering data

Version	SD	Screw terminals	PU (UNIT, SET, M)	PS*	PG
d		Article No.	Price per PU		
Expansion modules for SIMOCODE pro V					
<p>With SIMOCODE pro V, it is possible to expand the type and number of inputs and outputs in steps. Each expansion module has two system interfaces on the front. Through the one system interface the expansion module is connected to the system interface of the SIMOCODE pro V using a connection cable; through the second system interface, further expansion modules or the operator panel can be connected. The power supply for the expansion modules is provided by the connection cable through the basic unit.</p> <p>Note: Please order connection cable separately, see page 10/21.</p>					
 3UF7300-1AU00-0	Digital modules Up to two digital modules can be used to add additional binary inputs and relay outputs to the basic unit. The input circuits of the digital modules are supplied from an external power supply. Four binary inputs and two relay outputs Up to two digital modules can be connected	3UF7300-1AB00-0 3UF7300-1AU00-0 3UF7310-1AB00-0 3UF7310-1AU00-0	1 1 1 1	1 unit 1 unit 1 unit 1 unit	42J 42J 42J 42J
 3UF7400-1AA00-0	Analog module By means of the analog module, the basic unit can be optionally expanded with analog inputs and outputs (0/4 ... 20 mA). Two inputs (passive) for input and one output for output of 0/4 ... 20 mA signals, max. one analog module can be connected per pro V basic unit and max. two analog modules per pro V PN basic unit	3UF7400-1AA00-0	1	1 unit	42J
 3UF7510-1AA00-0	Ground-fault modules¹⁾ Ground-fault monitoring using 3UL23 residual-current transformers and ground-fault modules is used in cases where precise detection of the ground-fault current is required or power systems with high impedance are grounded. With the ground-fault module, it is possible to determine the precise fault current as a measured value, and to define freely selectable warning and trip limits in a wide range from 30 mA ... 40 A. One input for connecting a 3UL23 residual-current transformer, up to one ground-fault module can be connected Note: For corresponding residual-current transformers, see Catalog IC 10, Chapter 10 or Industry Mall .	3UF7510-1AA00-0	1	1 unit	42J
 3UF7700-1AA00-0	Temperature modules Irrespective of the thermistor motor protection of the basic units, an additional max. three analog temperature sensors can be evaluated using a temperature module. Sensor types: PT100/PT1000, KTY83/KTY84 or NTC Three inputs for connecting up to three analog temperature sensors, up to one temperature module can be connected per pro V basic unit and up to two temperature modules per pro V PN basic unit	3UF7700-1AA00-0	1	1 unit	42J

¹⁾ Possible with pro V PROFIBUS basic unit from product version E10, pro V PROFINET basic unit from product version E04, all pro V Modbus RTU or EtherNet/IP basic units.

SIMOCODE 3UF Motor Management and Control Devices

SIMOCODE pro 3UF7 Motor Management and Control Devices

Expansion modules

Version	SD	Screw terminals	PU (UNIT, SET, M)	PS*	PG
d		Article No.	Price per PU		
Expansion modules for SIMOCODE pro S					
Multifunction modules					
The multifunction module is the expansion module of the SIMOCODE pro S device series with the following functions:					
<ul style="list-style-type: none"> • Digital module function with four digital inputs and two monostable relay outputs • Ground-fault module function with an input for the connection of a 3UL23 residual-current transformer with freely selectable warning and trip limits in a wide zone of 30 mA ... 40 A • Temperature module function with an input for connecting an analog temperature sensor PT100, PT1000, KTY83, KTY84, or NTC 					
Max. one multifunction module can be connected per pro S basic unit					
Input voltage of the digital inputs:					
<ul style="list-style-type: none"> • 24 V DC • 110 ... 240 V AC/DC 					
<ul style="list-style-type: none"> ▶ 3UF7600-1AB01-0 ▶ 3UF7600-1AU01-0 					
1 1 unit 42J					
1 1 unit 42J					



3UF7600-1AU01-0

SIMOCODE 3UF Motor Management and Control Devices

SIMOCODE pro 3UF7 Motor Management and Control Devices

Fail-safe expansion modules

Selection and ordering data

Version	SD	Screw terminals		PU (UNIT, SET, M)	PS*	PG	
d		Article No.	Price per PU				
Fail-safe expansion modules for SIMOCODE pro V							
<p>Thanks to the fail-safe expansion modules, SIMOCODE pro V can be expanded with the function of a safety relay for the fail-safe disconnection of motors. A maximum of one fail-safe digital module can be connected; it can be used instead of a digital module.</p> <p>The fail-safe expansion modules are equipped likewise with two system interfaces at the front for making the connection to other system components. Unlike other expansion modules, power is supplied to the modules through a separate terminal connection.</p> <p>Note: Please order connection cable separately, see page 10/21.</p>							
		DM-F Local fail-safe digital modules					
3UF7320-1AB00-0		For fail-safe disconnection using a hardware signal Two relay enabling circuits, joint switching; two relay outputs, common potential disconnected fail-safe; inputs for sensor circuit, start signal, cascading and feedback circuit, safety function adjustable using DIP switches Rated control supply voltage U_s :	<ul style="list-style-type: none"> • 24 V DC • 110 ... 240 V AC/DC 	<ul style="list-style-type: none"> ▶ 3UF7320-1AB00-0 ▶ 3UF7320-1AU00-0 	1	1 unit	42J
		DM-F PROFIsafe fail-safe digital modules¹⁾					
3UF7330-1AB00-0		For fail-safe disconnection using PROFIBUS/PROFIsafe or PROFINET/PROFIsafe Two relay enabling circuits, joint switching; two relay outputs, common potential disconnected fail-safe; one input for feedback circuit; three binary standard inputs Rated control supply voltage U_s :	<ul style="list-style-type: none"> • 24 V DC • 110 ... 240 V AC/DC 	<ul style="list-style-type: none"> ▶ 3UF7330-1AB00-0 ▶ 3UF7330-1AU00-0 	1	1 unit	42J
					1	1 unit	42J

¹⁾ Cannot be used in conjunction with SIMOCODE pro V for Modbus RTU or EtherNet/IP communication.

SIMOCODE 3UF Motor Management and Control Devices

SIMOCODE pro 3UF7 Motor Management and Control Devices

Accessories

Selection and ordering data

	Version	SD d	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Connection cables (essential accessory)							
 3UF7932-0AA00-0	In different lengths for connecting basic unit, current measuring module, current/voltage measuring module, operator panel or expansion modules or decoupling module						
PC cables and adapters							
 3UF7941-0AA00-0	USB PC cables For connecting to the USB interface of a PC/PG, for communication with SIMOCODE pro through the system interface		► 3UF7941-0AA00-0		1	1 unit	42J
	USB/serial adapters To connect an RS 232 PC cable to the USB interface of a PC, recommended for use in conjunction with SIMOCODE pro 3UF	5	3UF7946-0AA00-0		1	1 unit	42J
Memory modules							
 3UF7901-0AA01-0	Enable transmission to a new system, e.g. when a device is replaced, without the need for additional aids or detailed knowledge of the device.						
	Memory module for SIMOCODE pro C For saving the complete parameterization of a SIMOCODE pro C system		► 3UF7900-0AA00-0		1	1 unit	42J
 3UF7901-0AA00-0	Memory module for SIMOCODE pro S and SIMOCODE pro V For saving the complete parameterization of a SIMOCODE pro system						
	• Titanium gray NEW		► 3UF7901-0AA01-0		1	1 unit	42J
	• Light gray		► 3UF7901-0AA00-0		1	1 unit	42J
Interface covers							
 3RA6936-0B	For system interface • Titanium gray	10	3RA6936-0B		1	5 units	42F
 3UF7950-0AA00-0	• Light gray		► 3UF7950-0AA00-0		1	5 units	42J
Addressing plugs							
 3UF7910-0AA00-0	For assigning the PROFIBUS or Modbus RTU address without using a PC/PG to SIMOCODE pro through the system interface		► 3UF7910-0AA00-0		1	1 unit	42J

SIMOCODE 3UF Motor Management and Control Devices

SIMOCODE pro 3UF7 Motor Management and Control Devices

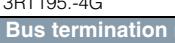
Accessories

Version	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG								
d														
Accessories for motor control centers														
<p>Initialization module</p>  <p>With the draw-out technology often used in motor control centers it is possible to integrate a SIMOCODE pro initialization module in the switchboard on a permanent basis. Feeder-related parameter and address data can then be permanently assigned to this feeder.</p>														
3UF7902-0AA00-0		3UF7902-0AA00-0		1	1 unit	42J								
Y connection cable														
<p>For use in conjunction with the initialization module; connects the basic unit, current measuring module or current/voltage measuring module, and initialization module</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>System interface length</td> <td>Open cable end</td> </tr> <tr> <td>0.1 m</td> <td>1.0 m</td> </tr> <tr> <td>0.5 m</td> <td>1.0 m</td> </tr> <tr> <td>1.0 m</td> <td>1.0 m</td> </tr> </table>							System interface length	Open cable end	0.1 m	1.0 m	0.5 m	1.0 m	1.0 m	1.0 m
System interface length	Open cable end													
0.1 m	1.0 m													
0.5 m	1.0 m													
1.0 m	1.0 m													
3UF7931-0CA00-0		3UF7931-0CA00-0		1	1 unit	42J								
3UF7932-0CA00-0		3UF7932-0CA00-0		1	1 unit	42J								
3UF7937-0CA00-0		3UF7937-0CA00-0		1	1 unit	42J								
Bus connection terminals														
	<p>For shield support and strain relief of the PROFIBUS cable on a SIMOCODE pro S</p>		3UF7960-0AA00-0		1	1 unit	42J							
3UF7960-0AA00-0														
Door adapters														
	<p>For external connection of the system interface, e.g. outside a control cabinet</p>		3UF7920-0AA00-0		1	1 unit	42J							
3UF7920-0AA00-0														
Adapters for operator panel														
	<p>The adapter enables the smaller 3UF7200 operator panel from SIMOCODE pro to be used in a front panel cutout in which previously, e.g. after a change of system, a larger 3UF52 operator panel from SIMOCODE-DP had been used, degree of protection IP54</p>		3UF7922-0AA00-0		1	1 unit	42J							
3UF7922-0AA00-0														
Labeling strips														
	<ul style="list-style-type: none"> For pushbuttons of the 3UF720 operator panel For pushbuttons of the 3UF721 operator panel with display For LEDs of the 3UF720 operator panel 		3UF7925-0AA00-0	100	400 units	42J								
3UF7925-0AA02-0		3UF7925-0AA01-0	100	600 units	42J									
		3UF7925-0AA02-0	100	1200 units	42J									
Push-in lugs														
	<p>For screw fixing, e.g. on mounting plate, two units required per device</p> <ul style="list-style-type: none"> Can be used for 3UF71.0, 3UF71.1 and 3UF71.2 Can be used for 3UF700, 3UF701, 3UF73, 3UF74, 3UF75 and 3UF77 Can be used for 3UF7020, 3UF7600 		3RV2928-0B	100	10 units	41E								
3RV2928-0B	2	3RP1903	1	10 units	41H									
	2	3ZY1311-0AA00	1	10 units	41L									

SIMOCODE 3UF Motor Management and Control Devices

SIMOCODE pro 3UF7 Motor Management and Control Devices

Accessories

Version	SD d	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Terminal covers						
		Covers for cable lugs and busbar connections				
3RT1956-4EA1		• Length 100 mm, can be used for 3UF71.3-1BA0.-0 • Length 120 mm, can be used for 3UF71.4-1BA0.-0	▶	3RT1956-4EA1	1	1 unit 41B
			▶	3RT1966-4EA1	1	1 unit 41B
		Covers for box terminals				
3RT1956-4EA2		• Length 25 mm, can be used for 3UF71.3-1BA0.-0 • Length 30 mm, can be used for 3UF71.4-1BA0.-0	▶	3RT1956-4EA2	1	1 unit 41B
			▶	3RT1966-4EA2	1	1 unit 41B
		Covers for screw terminals				
3RT1955-4G		Between contactor and current measuring module or current/voltage measuring module for direct mounting				
		• Can be used for 3UF71.3-1BA0.-0 • Can be used for 3UF71.4-1BA0.-0	▶	3RT1956-4EA3	1	1 unit 41B
			▶	3RT1966-4EA3	1	1 unit 41B
Box terminal blocks						
		For round and ribbon cables				
3RT1955-4G		• Up to 70 mm ² , can be used for 3UF71.3-1BA0.-0 • Up to 120 mm ² , can be used for 3UF71.3-1BA0.-0 • Up to 240 mm ² , can be used for 3UF71.4-1BA0.-0	▶	3RT1955-4G	1	1 unit 41B
			▶	3RT1956-4G	1	1 unit 41B
			▶	3RT1966-4G	1	1 unit 41B
Bus termination modules						
		With separate control supply voltage for bus termination following the last unit on the bus line				
3UF1900-1KA00		Supply voltage:				
	5	• 115/230 V AC		3UF1900-1KA00	1	1 unit 42J
	5	• 24 V DC		3UF1900-1KB00	1	1 unit 42J
Software						
		SIMOCODE ES (TIA Portal)				
3ZS1322-C.12-0Y.5		Software for configuring, commissioning, operating and diagnosing SIMOCODE pro based on the TIA Portal, see page 14/20.				
		SIMOCODE ES				
3ZS1312-C.10-0Y.5		Software for configuring, commissioning, operating and diagnosing SIMOCODE pro in Version 2007, see Catalog IC 10, Chapter 14 or Industry Mail.				
		SIMOCODE pro block library for SIMATIC PCS 7				
3ZS1632-XX02-0Y.0		The PCS 7 block library can be used for simple and convenient integration of SIMOCODE pro into the SIMATIC PCS 7 process control system, see page 14/24.				

SIMOCODE 3UF Motor Management and Control Devices

3UF18 current transformers for overload protection

Overview

More information

Home page, see www.siemens.com/sirius
Industry Mall, see www.siemens.com/product?3UF18

The 3UF18 current transformers are protection transformers and are used for actuating overload relays. Protection transformers are designed to ensure proportional current transfer up to a multiple of the primary rated current. The 3UF18 current transformers convert the maximum current of the corresponding operating range into the standard value of 1 A secondary.

Selection and ordering data

Type of mounting	Operating range	SD	Screw terminals		PU (UNIT, SET, M)	PS*	PG
			Article No.	Price per PU			
For stand-alone installation							
	Screw fixing and snap-on mounting onto TH 35 standard mounting rail according to IEC 60715	A	d	3UF1843-1BA00 3UF1843-2AA00 3UF1843-2BA00 3UF1845-2CA00 3UF1847-2DA00 3UF1848-2EA00	1 1 1 1 1 1	1 unit 1 unit 1 unit 1 unit 1 unit 1 unit	42J 42J 42J 42J 42J 42J
3UF1843							
For mounting onto contactors and stand-alone installation							
	Screw fixing	32 ... 130	20	3UF1850-3AA00 3UF1852-3BA00 3UF1854-3CA00 3UF1856-3DA00 3UF1857-3EA00 3UF1868-3FA00 3UF1868-3GA00	1 1 1 1 1 1 1	1 unit 1 unit 1 unit 1 unit 1 unit 1 unit 1 unit	42J 42J 42J 42J 42J 42J 42J
3UF1868							

¹⁾ The following setting ranges for the protection of EEx e motors are applicable:

- 3UF1843-1BA00: 0.25 ... 1.25 A
- 3UF1843-2AA00: 1.25 ... 6.3 A
- 3UF1843-2BA00: 2.5 ... 12.5 A.

Accessories

For contactor type	SD	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Terminal covers						
	For transformer/contactor combinations and stand-alone installation for transformer (cover required per connection side)	20 20 5 5 5 5	3TX7446-0A 3TX7466-0A 3TX7506-0A 3TX7536-0A 3TX7686-0A 3TX7696-0A	1 1 1 1 1 1	1 unit 1 unit 1 unit 2 units 1 unit 1 unit	41B 41B 41B 41B 41B 41B
3TX7466-0A						
For covering the screw terminal for direct mounting on contactor (cover required per contactor/transformer combination)						
3UF1848 3UF1850, 3UF1852 3UF1854 to 3UF1857 3UF1868-3FA00 3UF1868-3GA00	20 20 20 15	3TX7466-0B 3TX7506-0B 3TX7536-0B 3TX7686-0B	1 1 1 1	1 unit 1 unit 1 unit 1 unit	41B 41B 41B 41B	

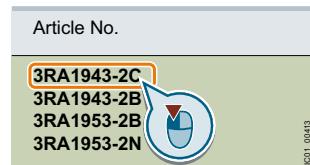
Parameterization, Configuration and Visualization with SIRIUS



	Price groups PG 2AP, 346, 42B, 42C, 42D, 42H, 42J
14/2	Introduction
14/5	Simulation Tool for Soft Starters (STS)
14/6	SIRIUS Soft Starter ES (TIA Portal)
14/9	Soft Starter ES
14/12	SIRIUS 3RW44 Soft Starter block library for SIMATIC PCS 7
14/15	Motor Starter ES
14/18	SIRIUS Motor Starter block library for SIMATIC PCS 7
14/20	SIMOCODE ES (TIA Portal)
	SIMOCODE ES
14/24	SIMOCODE pro block library for SIMATIC PCS 7
14/31	AS-Interface block library for SIMATIC PCS 7
14/34	SIRIUS Safety ES

NEW

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

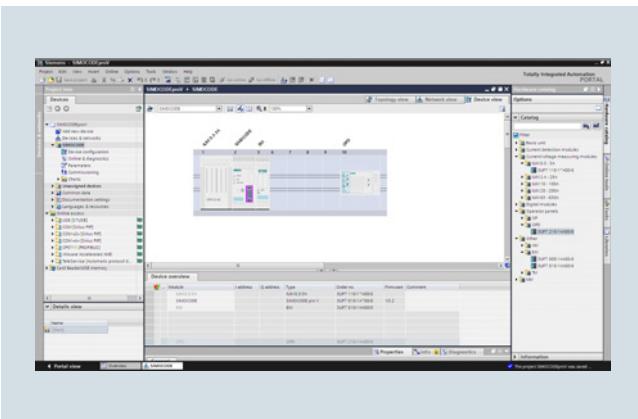


Or directly in the Internet, e. g.
[www.siemens.com/
product?3RA1943-2C](http://www.siemens.com/product?3RA1943-2C)

Parameterization, Configuration and Visualization with SIRIUS

SIMOCODE ES (TIA Portal)

Overview



Selecting the SIMOCODE pro device configuration in SIMOCODE ES (TIA Portal)

More information

Home page, see www.siemens.com/sirius

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

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

To download the SIMOCODE ES (TIA Portal) software see
<https://support.industry.siemens.com/cs/ww/en/view/109738034>

To download the SIMOCODE ES 2007 software 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 through 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 through 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>.

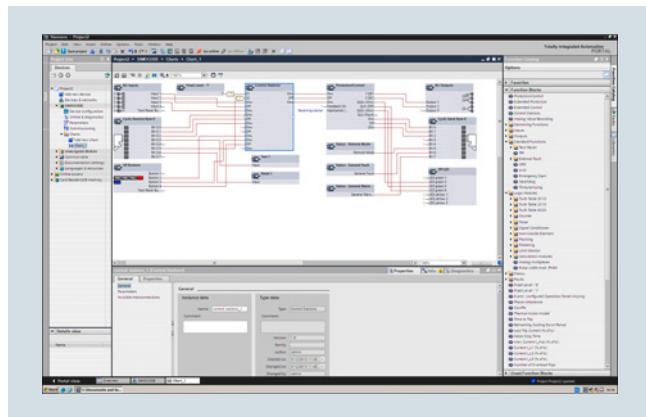
Working with libraries

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.



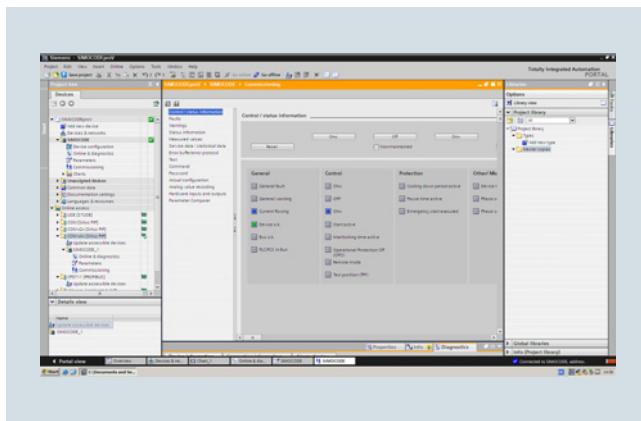
Parameterize easily and ergonomically with the CFC-based graphics editor of SIMOCODE ES V14

Parameterization, Configuration and Visualization with SIRIUS

SIMOCODE ES (TIA Portal)

Online functions for startup and diagnosis

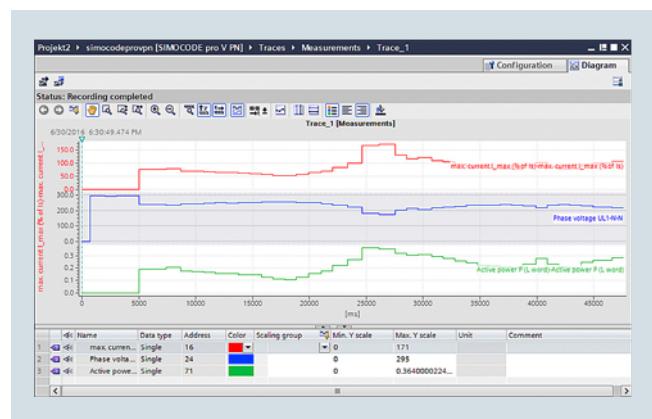
To this end, SIMOCODE ES provides powerful functions for startup and diagnosis of motor feeders. Besides a detailed display of status information and the causes of faults, all available measurement and statistics data can be retrieved online. Access to the fault and event memory and also to analog values 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 startup 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 (English/German/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 ▶ 3ZS1322-4CE12-0YB5			1 1 unit 42J 1 1 unit 42J	
SIMOCODE ES V14 Standard							
	Floating license for one user Engineering software, software and documentation on DVD, 6 languages (English/German/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 ▶ 3ZS1322-5CE12-0YB5			1 1 unit 42J 1 1 unit 42J	
	Upgrade for SIMOCODE ES 2007	2	3ZS1322-5CC12-0YE5			1 1 unit 42J	
	Powerpack for SIMOCODE ES V14 Basic	2	3ZS1322-5CC12-0YD5			1 1 unit 42J	
	Software Update Service		▶ 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 14/23](#).

For description of the software versions, [see page 14/20](#).

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 (English/German/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)					
	<ul style="list-style-type: none"> • License key on USB flash drive, Class A • License key download, Class A 	▶ 3ZS1322-6CC12-0YA5 ▶ 3ZS1322-6CE12-0YB5	1 1	1 unit 1 unit	42J 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 (English/German/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
	Powerpack for SIMOCODE ES V14 Standard Floating license for one user, engineering software, license key on USB flash drive, Class A 6 languages (English/German/French/Italian/Spanish/Chinese), for all SIMOCODE pro, online functions via system interface and PROFIBUS/PROFINET/EtherNet/IP, parameterizing with the integrated graphics editor (CFC-based)	2	3ZS1322-6CC12-0YD5	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 and PROFIBUS/PROFINET/EtherNet/IP, parameterizing with the integrated graphics editor (CFC-based)	▶ 3ZS1322-6CC12-0YL5	1	1 unit	42J	
SIMOCODE ES V14 software download						
	Trial license, Class A Engineering software, 6 languages (English/German/French/Italian/Spanish/Chinese), for all SIMOCODE pro, online functions via system interface and PROFIBUS/PROFINET/EtherNet/IP, parameterizing with the integrated graphics editor (CFC-based)	▶ 3ZS1322-6CE12-0YG8	1	1 unit	42J	

Notes:

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

For description of the software versions, see page 14/20.

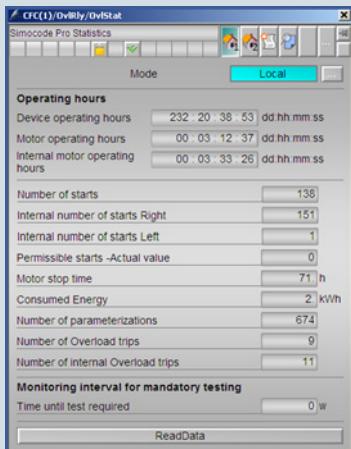
Accessories

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 through the system interface	▶ 3UF7941-0AA00-0	1	1 unit	42J	
	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

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

Home page, see www.siemens.com/sirius

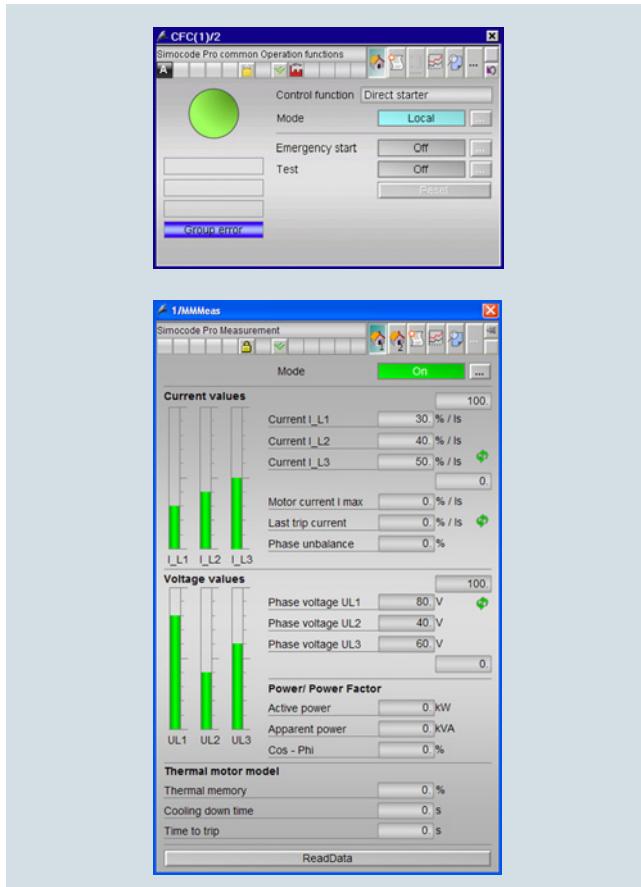
Industry Mall, see www.siemens.com/product?3ZS1

Technical specifications, see
<https://support.industry.siemens.com/cs/ww/en/ps/16718/td>

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

- Version V8.2, see
<https://support.industry.siemens.com/cs/ww/en/view/103954289>
- Version V8.0 + SP3, see
<https://support.industry.siemens.com/cs/ww/en/view/84626047>

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 modules 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	
d							
SIMOCODE pro block library for SIMATIC PCS 7 Version V8 with Advanced Process Library (APL)							
 3ZS1632-1XX02-0YA0	Engineering software V8 For one engineering station (single license) including runtime software for execution of the AS modules in an automation system (single license), English/German 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 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 station	▶	3ZS1632-1XX02-0YA0		1	1 unit	42J
Runtime license V8 For execution of the AS modules in an automation system (single license) Required for using the AS modules of the engineering software V8 within a plant Type of delivery: one license for one automation station, without software and documentation		▶	3ZS1632-2XX02-0YB0		1	1 unit	42J

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)							
		Engineering software V7	▶ 3UF7982-0AA10-0		1	1 unit	42J
3UF7982-0AA10-0		For one engineering station (single license) including runtime software for execution of the AS modules in an automation system (single license), English/German/French Scope of supply: AS modules and faceplates for integrating SIMOCODE pro into the PCS 7 process control system, for PCS 7 version V7.0/V7.1 Type of delivery: software and documentation on CD, one license for one engineering station one license for one automation station					
		Runtime license V7	▶ 3UF7982-0AA11-0		1	1 unit	42J
		For execution of the AS modules in an automation system (single license) Required for using the AS modules 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 station, without software and documentation					
	2	Upgrade for PCS 7 block library SIMOCODE pro, V6.0 or V6.1 to version SIMOCODE pro V7.0/V7.1	3UF7982-0AA13-0		1	1 unit	42J
		For one engineering station (single license) including runtime software for execution of the AS modules in an automation system (single license), English/German/French Scope of supply: AS modules and faceplates for integrating SIMOCODE pro into the PCS 7 process control system, for PCS 7 version V7.0 or V7.1 Type of delivery: software and documentation on CD, one license for one engineering station one license for one automation station					
		Engineering software migration V7-V8	▶ 3UF7982-0AA20-0		1	1 unit	42J
		For upgrading (migrating) an existing engineering software V7 of the SIMOCODE pro block library for PCS 7 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 Engineering software migration V7-V8 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 modules in an automation system (single license), English/German/French Scope of supply: AS blocks and faceplates for integrating SIMOCODE pro 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 the associated runtime licenses of a plant					

* You can order this quantity or a multiple thereof.
Illustrations are approximate

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