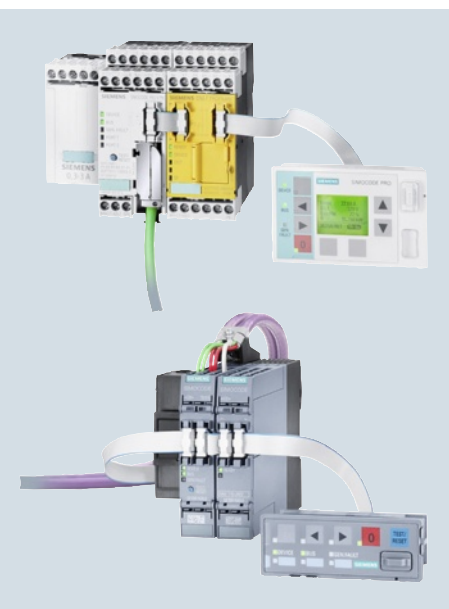


Monitoring and Control Devices



Notes:

3RT191. function modules can be found
- in the catalog Add-On IC 10 AO · 2014
in the DVD box IC 01

- in the catalog Add-On IC 10 AO · 2014
at the Information and Download Center

- in the interactive catalog CA 01

- in the Industry Mall

Conversion tool
e.g. from 3UG3 to 3UG4 [see
www.siemens.com/sirius/conversion-tool](http://www.siemens.com/sirius/conversion-tool)

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

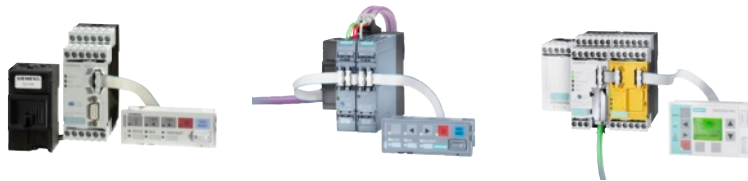
	Price groups
	PG 200, 2SP, 401, 470, 41B, 41F, 41H, 41L, 42C, 42J, 4N1, 5K1, 5P1
10/2	Introduction
	SIMOCODE 3UF motor management and control devices
	<u>SIMOCODE pro 3UF7</u>
10/5	General data
10/14	Basic units NEW
10/16	Expansion modules NEW
10/18	Fail-safe expansion modules
10/19	Accessories
10/28	<u>3UF18 current transformers for overload protection</u>
ST 70	LOGO! logic modules¹⁾
10/29	General data
10/30	LOGO! Modular basic versions
10/31	<u>SIPLUS LOGO! Modular basic versions NEW</u>
10/32	LOGO! Modular pure versions
10/33	SIPLUS LOGO! Modular pure versions
10/34	LOGO! Modular expansion modules
10/35	SIPLUS LOGO! Modular expansion modules
10/36	LOGO! CM EIB/KNX communication modules
10/37	LOGO! CSM unmanaged
10/38	AS-Interface connections for LOGO!
10/39	Accessories
Ch. 15	LOGO!Power
10/40	LOGO!Contact
10/41	LOGO! Software
	Relays
	<u>Timing relays</u>
10/42	General data
10/51	SIRIUS 3RP15 timing relays in industrial enclosure, 22.5 mm
10/57	SIRIUS 3RP20 timing relays, 45 mm
10/60	7PV15 timing relays in enclosure, 17.5 mm
Ch. 3	SIRIUS 3RA28 function modules for mounting on 3RT2 and 3RH21 contactors
Ch. 3	SIRIUS 3RA28 time-delayed auxiliary switches for mounting onto 3RT2 contactors
10/64	SIRIUS 3RT19 timing relays for mounting onto 3RT1 contactors
Ch. 3	SIRIUS 3RT19 time-delayed auxiliary switches for mounting onto 3RT1 contactors
10/67	Accessories
	<u>SIRIUS 3RR21, 3RR22 monitoring relays for mounting onto 3RT2 contactors</u>
10/68	General data
10/71	Current and active current monitoring

	<u>SIRIUS 3RR24 monitoring relays for mounting onto 3RT2 contactors for IO-Link</u>
10/76	General data
10/79	Current and active current monitoring
	<u>SIRIUS 3UG45, 3UG46 monitoring relays for stand-alone installation</u>
10/84	General data
10/87	Line monitoring
10/92	Voltage monitoring
10/95	Current monitoring
10/98	Power factor and active current monitoring
	<u>Residual current monitoring NEW</u>
10/101	- Residual-current monitoring relays
10/104	- 3UL23 residual-current transformers
	<u>Insulation monitoring NEW</u>
10/105	- General data
10/107	- For ungrounded AC networks
10/110	- For ungrounded DC and AC networks
	Level monitoring
10/115	- Level monitoring relays
10/118	- Level monitoring sensors
10/119	Speed monitoring
10/122	Accessories
	<u>SIRIUS 3UG48 monitoring relays for stand-alone installation for IO-Link NEW</u>
10/123	General data
10/127	Line monitoring
10/130	Voltage monitoring
10/133	Current monitoring
10/136	Power factor and active current monitoring
	Residual current monitoring
10/140	- Residual-current monitoring relays
10/143	Speed monitoring
10/146	Accessories
	<u>SIRIUS 3RS10, 3RS11, 3RS20, 3RS21 temperature monitoring relays</u>
10/147	General data
10/151	Relays, analogically adjustable for 1 sensor
10/154	Relays, digitally adjustable for 1 sensor
10/157	Relays, digitally adjustable for up to 3 sensors
10/159	Accessories
	<u>SIRIUS 3RS14, 3RS15 temperature monitoring relays for IO-Link NEW</u>
10/160	General data
10/166	Relays, digitally adjustable for 1 sensor
10/169	Relays, digitally adjustable for up to 3 sensors
10/171	Accessories
	<u>SIRIUS 3RN1 thermistor motor protection</u>
10/172	For PTC sensors
	<u>Coupling relays & interface converters</u>
Ch. 5	Coupling relays
Ch. 4	Power relays/miniature contactors
10/181	SIRIUS 3RS17 interface converters

Monitoring and Control Devices

Introduction

Overview



Type	SIMOCODE pro C	SIMOCODE pro S	SIMOCODE pro V/ SIMOCODE pro V PROFINET	Page
SIMOCODE 3UF motor management and control devices				
Basic units	✓	✓	✓	10/14
Current measuring modules	✓	✓	✓	10/15
Current/voltage measuring modules	--	--	✓	10/15
Decoupling modules	--	--	✓	10/15
Operator panels	✓	✓	✓	10/15
Operator panels with display	--	--	✓	10/15
Expansion modules	--	✓	✓	10/16
Fail-safe expansion modules	--	--	✓	10/18
Current transformers	✓	✓	✓	10/28
SIMOCODE ES (TIA Portal)	✓	✓	Available soon	10/22
SIMOCODE ES 2007	✓	✓	✓	10/24
SIMOCODE pro block library for SIMATIC PCS 7	✓	Available soon	✓	10/26

✓ Available

-- Not available



Type	Basic units	Expansion modules	Software	Page
LOGO! logic modules				
LOGO! Modular basic versions	✓	--	--	10/30
SIPLUS LOGO! Modular basic versions ¹⁾	✓	--	--	10/31
LOGO! Modular pure versions	✓	--	--	10/32
SIPLUS LOGO! Modular pure versions ¹⁾	✓	--	--	10/33
LOGO! Modular expansion modules	--	✓	--	10/34
SIPLUS LOGO! Modular expansion modules ¹⁾	--	✓	--	10/35
LOGO! CM EIB/KNX communication modules	--	✓	--	10/36
LOGO! CSM unmanaged	--	✓	--	10/37
AS-Interface connections for LOGO!	--	✓	--	10/38
LOGO!Contact	--	✓	--	10/40
LOGO! Software	--	--	✓	10/41

✓ Corresponds to

-- Does not correspond to

¹⁾ Devices with extended temperature range and medial loading.



Type Page	3RP15 10/51	3RP20 10/57	7PV15 10/60	3RT19 10/64
Timing relays				
Enclosure:				
• 17.5 mm industry and household equipment installation	--	--	✓	--
• 22.5 mm industry	✓	--	--	--
• 45 mm industry	--	✓	--	--
• For contactor sizes S0 to S12	--	--	--	✓
Monofunction	✓	✓	✓	✓
Multifunction	✓	✓	✓	--
Monovoltage	--	--	--	✓
Combination voltage	✓	✓	✓	--
Wide voltage range	✓	✓	✓	--
Application:				
• Control systems and mechanical engineering	✓	✓	✓	✓
• Infrastructure	--	--	✓	--
• Mounting onto contactors	--	--	--	✓

✓ Corresponds to or possible
-- Does not correspond to or not possible

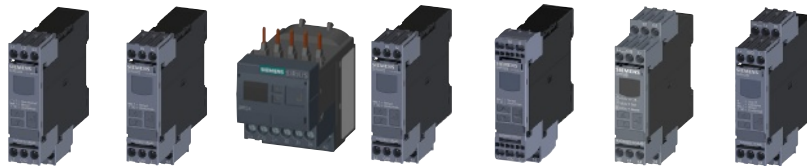


Type	3UG451., 3UG461.	3UG463.	3RR21, 3RR22, 3UG4621, 3UG4622	3UG4641	3UG4625 with 3UL23	3UG458.	3UG4501	3UG4651	Page
Monitoring relays									
Line monitoring	✓	--	--	--	--	--	--	--	10/87
Voltage monitoring	--	✓	--	--	--	--	--	--	10/92
Current monitoring	--	--	✓	--	--	--	--	--	10/71, 10/95
Active current monitoring	--	--	3RR22: ✓	✓	--	--	--	--	10/71, 10/98
Power factor monitoring	--	--	--	✓	--	--	--	--	10/98
Residual current monitoring	--	--	--	--	✓	--	--	--	10/101
Insulation monitoring	--	--	--	--	--	✓	--	--	10/107, 10/110
Level monitoring	--	--	--	--	--	--	✓	--	10/115
Speed monitoring	--	--	--	--	--	--	--	✓	10/119

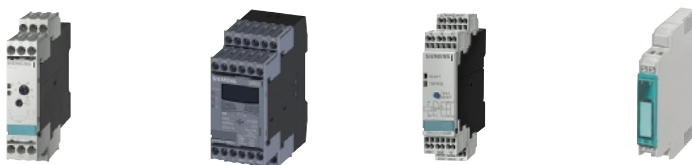
✓ Available
-- Not available

Monitoring and Control Devices

Introduction



Type	3UG481.	3UG4832	3RR24	3UG4822	3UG4841	3UG4825 with 3UL23	3UG4851	Page
Monitoring relays for IO-Link								
Line monitoring	✓	--	--	--	--	--	--	10/127
Voltage monitoring	--	✓	--	--	--	--	--	10/130
Current monitoring	--	--	✓	✓	--	--	--	10/79, 10/133
Power factor and active current monitoring	--	--	✓	--	✓	--	--	10/79, 10/136
Residual current monitoring	--	--	--	--	--	✓	--	10/140
Speed monitoring	--	--	--	--	--	--	✓	10/143
✓ Available -- Not available								



Type	3RS10, 3RS11, 3RS20, 3RS21	3RS14, 3RS15	3RN1	3RS17	Page
Temperature monitoring relays					
Temperature monitoring	✓	--	--	--	10/151, 10/154, 10/157
Temperature monitoring relays for IO-Link					
Temperature monitoring for IO-Link	--	✓	--	--	10/166, 10/169
Thermistor motor protection					
Thermistor motor protection	--	--	✓	--	10/172
Interface converters					
Interface converters	--	--	--	✓	10/181
✓ Available -- Not available					

Connection methods

The monitoring and control devices are available with screw or spring-type terminals.



Screw terminals



Spring-type terminals

The terminals are indicated in the corresponding tables by the symbols shown on orange backgrounds.

"Increased safety" type of protection EEx e/d according to ATEX directive 94/9/EC

The communication-capable, modularly designed SIMOCODE pro motor management system (SIRIUS Motor Management and Control Devices) protects motors of types of protection EEx e and EEx d in potentially explosive areas.

ATEX approval for operation in areas subject to explosion hazard

The SIRIUS 3RN1 thermistor motor protection relay for PTC sensors is certified according to ATEX Ex II (2) G and D for environments with explosive gas or dust loads.

The SIRIUS SIMOCODE pro 3UF7 motor management system is certified for the protection of motors in areas subject to explosion hazard according to

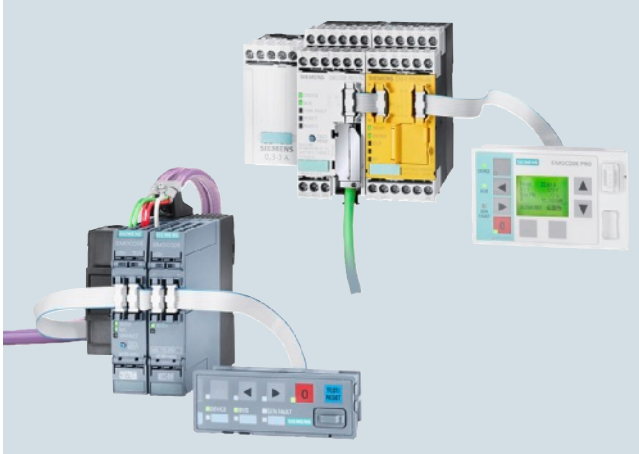
- ATEX Ex I (M2); equipment group I, category M2 (mining)
- ATEX Ex II (2) GD; equipment group II, category 2 in area GD.

SIMOCODE 3UF Motor Management and Control Devices

SIMOCODE pro 3UF7

General data

Overview



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

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.

When SIMOCODE pro is installed in the low-voltage switch-board, it is the intelligent interface between the higher-level automation system and the motor feeder and includes the following:

- Multifunctional, solid-state full motor protection that is independent of the automation system
- Integrated control functions instead of hardware for the motor control
- Detailed operating, service and diagnostics data
- Open communication through PROFIBUS DP, PROFINET and OPC UA
- 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 is structured into several functionally tiered series:

- SIMOCODE pro C, as a 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, as a 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	pro S PROFIBUS	pro V ³⁾ PROFIBUS ¹⁾	PROFINET
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 ²⁾	--	--	1	1
• Analog modules	--	--	1	2
• Ground-fault modules	--	--	1	1
• Temperature modules	--	--	1	2
• Multifunction modules	--	1	--	--

✓ Available

-- Not available

¹⁾ 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 10/13](#).

²⁾ The fail-safe digital module can be used instead of one of the two digital modules.

³⁾ Maximum of 5 expansion 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.

SIMOCODE 3UF Motor Management and Control Devices

SIMOCODE pro 3UF7

General data

Article No. scheme

Digit of the Article No.	1st - 4th	5th	6th	7th		8th	9th	10th	11th	12th		13th
	□□□□	□	□	□	–	1	□	□	0	□	–	0
SIMOCODE pro motor management system	3 U F 7											
Type of unit/module		□										
Functional version of the unit/module			□	□								
Connection type of the current transformer							□					
Voltage version								□				
Color (0 = lightgray, 1 = titan gray)										□		
Example	3 U F 7	0	1	0	–	1	A	B	0	0	–	0

Note:

The Article No. scheme is presented here merely for information purposes and for better understanding of the logic behind the article numbers.

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

Benefits

General customer benefits

- Integrating the whole motor feeder into the process control by means of PROFIBUS DP, PROFINET or OPC UA significantly reduces the wiring outlay between the motor feeder and 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 solid-state 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

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 delayable protection and monitoring functions:

- Inverse-time delayed solid-state overload protection (CLASS 5 to 40)
- 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 PROFIBUS/PROFINET).

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

General data

Detailed operational, service and diagnostics data

SIMOCODE pro makes different operating, 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
- 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, there is also an operator panel with display: the 3UF721 is thus able in addition to 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. Also, when SIMOCODE pro V PROFINET is used it is possible to set parameters such as rated motor current, limit values, etc. directly via the operator panel with display.

Communications

SIMOCODE pro has either an integrated PROFIBUS DP interface (SUB-D or terminal connection) or a PROFINET 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 for PROFIBUS

SIMOCODE pro for 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 for PROFINET

SIMOCODE pro for 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 power management via PROFIenergy
- Module exchange without PC memory module through proximity detection
- Extensive diagnostics and maintenance alarms

Notes on safety

For connection of an internal system to an external system, suitable protective measures must be taken to ensure safe operation of the plant (including IT security, e. g. network segmentation).

More information see www.siemens.com/industrialsecurity.

For SIMOCODE pro motor management and control devices with communication function see page 10/14 onwards.

Accessories see page 10/19 onwards.

More information see Chapter 14 "Parameterization, Configuration and Visualization with SIRIUS" or Industry Mall.

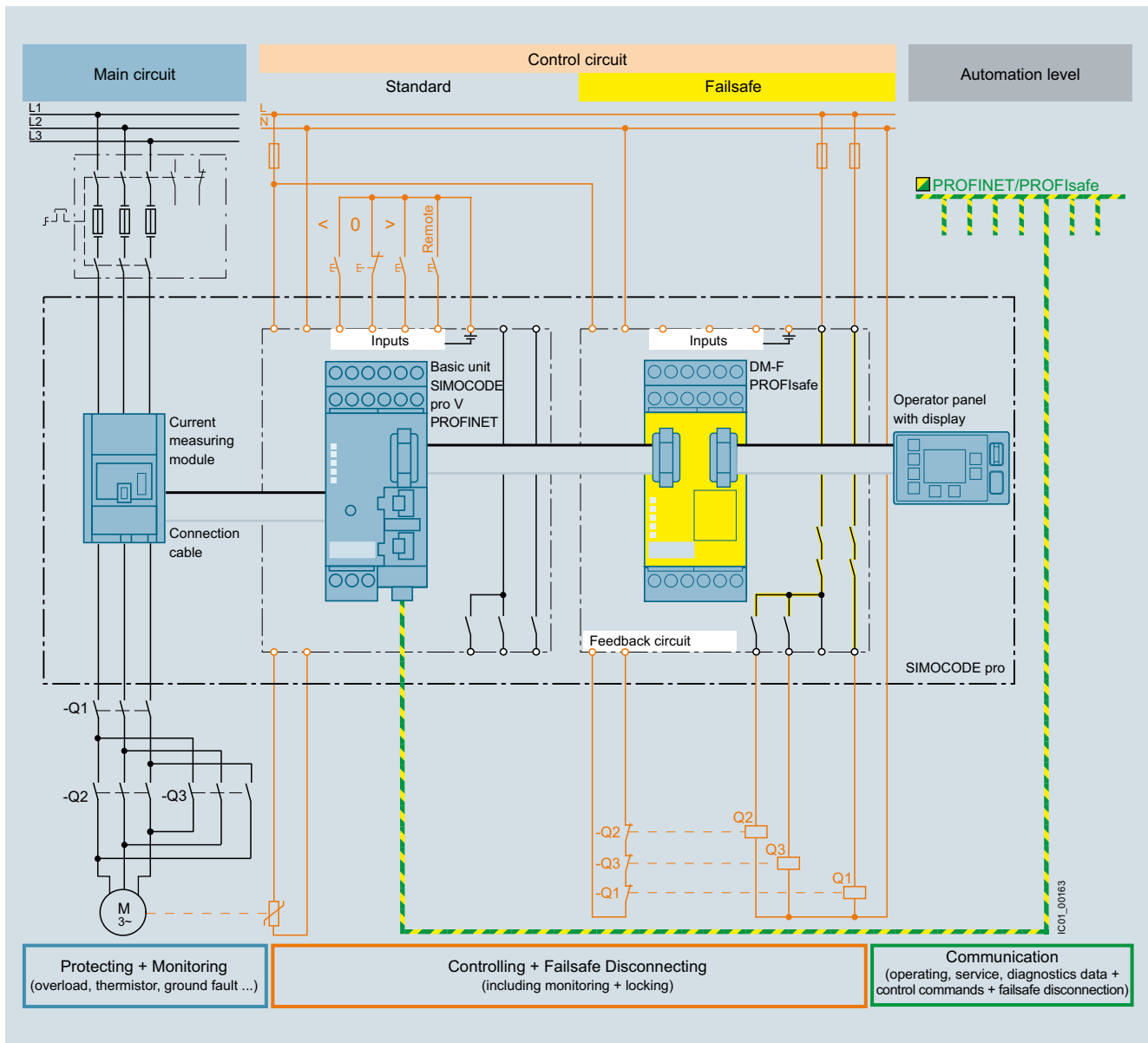
Autonomous operation

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 parametrized in case of such a fault, e.g. targeted shutdown of the feeder or execution of particular parametrized control mechanisms (such as reversal of the direction of rotation).

SIMOCODE 3UF Motor Management and Control Devices

SIMOCODE pro 3UF7

General data



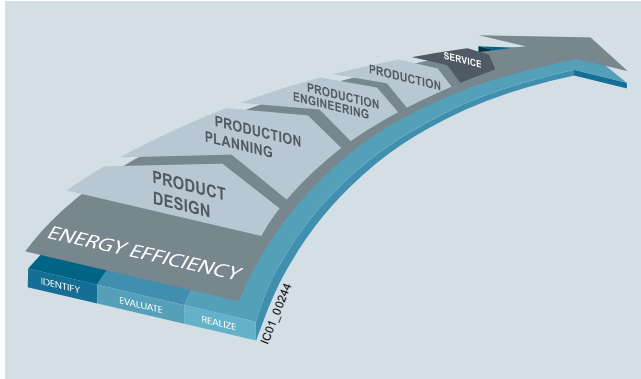
SIMOCODE pro combines all essential functions, including safety functions, through PROFINET/PROFIsafe for the motor feeder

SIMOCODE 3UF Motor Management and Control Devices

SIMOCODE pro 3UF7

General data

Advantages through energy efficiency



Overview of the energy management process

We offer you a unique portfolio for industrial energy management, using an energy management system that helps to optimally define your energy needs. 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.

Application

SIMOCODE pro is often used for automated processes where plant downtimes are very expensive (e.g. steel or cement industry) and where it is important to prevent plant downtimes through detailed operating, service and diagnostics data or to localize the fault very quickly in the event of a fault.

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)

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 energy measured values (e. g. limit value monitoring) with exporting of local or central actions (= forwarding to higher-level)
- **PROFenergy:**
SIMOCODE pro V PROFINET supports the PROFenergy functions. Reduced energy consumption thanks to automatic disconnection in the intervals and forwarding of the measured values for higher-level energy management systems.

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 the disconnection and transmits it in a fail-safe manner through PROFIBUS/PROFIsafe or PROFINET/PROFIsafe to the motor management system

SIMOCODE 3UF Motor Management and Control Devices

SIMOCODE pro 3UF7

General data

Technical specifications

General data		
Type	3UF7	
Permissible ambient temperature		
• During operation	°C	-25 ... +60 ; 3UF7 21: 0 ... +60
• During storage and transport	°C	-40 ... +80 ; 3UF7 21: -20 ... +70
Degree of protection (to IEC 60529)		
• Measurement 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		
• Conducted interference, surge acc. to IEC 61000-4-5	kV	2 (line to ground); 3UF7320-1AB, 3UF7330-1AB: 1 (line to ground)
	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: Only operate front side during operation
	kV	6 (contact discharge); 3UF721: 4 (contact discharge)
• Field-related interference acc. to IEC 61000-4-3	V/m	10
EMC emitted interference (according to IEC 60947-1)		
• Conducted and radiated interference emission		EN 55011/EN 55022 (CISPR 11/CISPR 22) (corresponds to degree of severity A)
Protective separation (acc. to IEC 60947-1)		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.
Basic units		
Type	3UF7000-1AU00-0 3UF7010-1AU00-0 3UF7011-1AU00-0 3UF7020-1AU01-0	3UF7000-1AB00-0 3UF7010-1AB00-0 3UF7011-1AB00-0 3UF7020-1AB01-0
Control circuit		
Rated control supply voltage U_s (according to IEC 61131-2)		110 ... 240 AC/DC; 50/60 Hz
Operating range		24 V DC
• SIMOCODE pro C (3UF7000) and SIMOCODE pro V (3UF7010)	0.85 ... 1.1 × U_s	0.80 ... 1.2 × U_s
• SIMOCODE pro V PN (3UF7011) and SIMOCODE pro S (3UF7020)		
- Operation	0.85 ... 1.1 × U_s	0.80 ... 1.2 × U_s
- Start-up	0.85 ... 1.1 × U_s	0.85 ... 1.2 × U_s
Power consumption		
• SIMOCODE pro C (3UF7000) and SIMOCODE pro S (3UF7020)	7 VA/5 W	5 W
• SIMOCODE pro V (3UF7010)	10 VA/7 W	7 W
• SIMOCODE pro V PN (3UF7011) and SIMOCODE pro S (3UF7020)	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, SIMOCODE pro V PN		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 (Ik < 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/24 V DC 0.55 A/60 V DC 0.25 A/125 V DC
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

SIMOCODE 3UF Motor Management and Control Devices

SIMOCODE pro 3UF7

General data

Current measuring modules or current/voltage measuring modules

Type		3UF71.0	3UF71.1	3UF71.2	3UF71.3	3UF71.4
Main circuit						
Current setting I_e	A	0.3 ... 3	2.4 ... 25	10 ... 100	20 ... 200	63 ... 630
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. $U_{L1 L2}$)	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 p.f. = 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. In the supply lines from the main circuit for voltage measurement of SIMOCODE pro it may be necessary to provide additional line protection!				
• Supply lines for voltage measurement						

Digital modules or multifunction module

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)					
- 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 (Ik < 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/24 V DC	0.55 A/60 V DC	0.25 A/125 V DC	
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 transformers	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 • 3UF7700 • 3UF7600		3 temperature sensors 1 temperature sensor			
Typical sensor circuits • PT100 • PT1000/KTY83/KTY84/NTC	mA mA	1 (typical) 0.2 (typical)			
Open-circuit/short-circuit detection • Sensor type - Open circuit - Short circuit - Measuring range		PT100/PT1000 ✓ ✓ °C	KTY83-110 ✓ ✓ -50 ... +500	KTY84 ✓ ✓ -40 ... +300	NTC -- ✓ 80 ... 160
Measuring accuracy at 20 °C ambient temperature (T20)	K	< ±2			
Deviation due to ambient temperature (in % of 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

General data

Analog modules					
Type	3UF74				
Control circuit					
Inputs					
• Channels		2 (passive)			
• Parameterizable measuring ranges	mA	0/4 ... 20			
• Shielding		Up to 30 m shield recommended, from 30 m shield required			
• Max. input current (destruction limit)	mA	40			
• Accuracy	%	±1			
• Input resistance	Ω	50			
• Conversion time	ms	150			
• Resolution	bit	12			
• Open-circuit detection		With measuring range 4 ... 20 mA			
Outputs					
• Channels		1			
• Parameterizable output range	mA	0/4 ... 20			
• Shielding		Up to 30 m shield recommended, from 30 m shield required			
• Max. voltage at output	V DC	30			
• Accuracy	%	±1			
• Max. output load	Ω	500			
• Conversion time	ms	25			
• Resolution	bit	12			
• Short-circuit proof		Yes			
Connection type	Two-wire connection				
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 W	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/24 V AC	3 A/120 V AC	1.5 A/230 V AC	
• 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	1 500			
• For further digital signals	m	300			
Safety data ¹⁾					
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 x 10 ⁻⁹	4.6 x 10 ⁻⁹	4.4 x 10 ⁻⁹	4.4 x 10 ⁻⁹
• On demand (PFD _{avg}) at a low demand rate according to IEC 61508		5.4 x 10 ⁻⁶	5.5 x 10 ⁻⁶	5.1 x 10 ⁻⁶	5.2 x 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",
<http://support.automation.siemens.com/WW/view/en/50564852>.

More information

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

If you want to use an operator panel with display and/or a decoupling module in the SIMOCODE pro V system with PROFIBUS, then the following 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.

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 modules	Digital modules	Analog modules	Temperature modules	Ground-fault modules
Only operator panel with display for SIMOCODE pro V (24 V DC or 110 ... 240 V AC/DC)				
Max. 4 expansion modules can be used				
Operator panel with display and current/voltage measurement with SIMOCODE pro V (110 ... 240 V AC/DC)				
Max. 3 expansion modules can be used or:				
--	--	✓	✓	--

✓ Available

-- Not available

Use of a decoupling module

(voltage measurement in insulated networks)

Digital modules	Digital modules	Analog modules	Temperature modules	Ground-fault modules
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 5 of 7 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 modules	Digital modules	Analog modules	Temperature modules	Ground-fault modules
SIMOCODE pro V (24 V DC)				
✓	--	✓	✓	✓
✓	✓	--	✓	✓
SIMOCODE pro V (110 ... 240 V AC/DC)				
✓ ²⁾	--	✓	✓	✓
✓	✓	--	--	--
✓ ¹⁾	✓ ¹⁾	✓ ³⁾	--	--
✓	--	--	✓	✓

✓ Available

-- Not available

¹⁾ No bistable relay outputs and no more than 5 of 7 relay outputs active simultaneously (> 3 s).

²⁾ No bistable relay outputs and no more than 3 of 5 relay outputs active simultaneously (> 3 s).

³⁾ Analog module output is not used.

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 test certificate: BVS 06 ATEX F 001

Test log: BVS PP 05.2029 EG.

Selection data for type-tested assemblies/load feeders

For configuration tables according to type of coordination "1" or "2", see

- Manual "Configuring SIRIUS", Article No.: 3ZX1012-ORA21-0AB0, <http://support.automation.siemens.com/WW/view/en/40625241>
- Manual "Configuring SIRIUS Innovations", Article No.: 3ZX1012-ORA21-1AB0, <http://support.automation.siemens.com/WW/view/en/39714188>
- SIMOCODE pro PROFIBUS System Manual, Article No.: 3ZX1012-0UF70-3AA1, <http://support.automation.siemens.com/WW/view/en/20017780>
- SIMOCODE pro PROFINET System Manual, Article No.: 3ZX1012-0UF70-1AB1, <http://support.automation.siemens.com/WW/view/en/61896631>

System manual

The SIMOCODE pro system manual describes the motor management system and its functions in detail. It provides information on configuration, start-up, servicing and maintenance. A typical example of a reversing starter application is used to teach the user quickly and practically how to use the system. In addition to help on how to identify and rectify faults in the event of a malfunction, the manual also contains special information for servicing and maintenance. For selection of equipment and for configuration, it is recommended to consult the system manual.

A detailed description of the DM-F Local and DM-F PROFIsafe fail-safe expansion modules is provided in the system manual "SIMOCODE pro Safety Fail-Safe Digital Modules", which can be downloaded from the Internet.

Internet

More information see www.siemens.com/simocode.

SIMOCODE 3UF Motor Management and Control Devices

SIMOCODE pro 3UF7

Basic units

Selection and ordering data

Version	DT	Screw terminals		PU (UNIT, SET, M)	PS*	PG
		Article No.	Price per PU			
SIMOCODE pro						
	SIMOCODE pro C PROFIBUS DP interface, 12 Mbit/s, 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 S PROFIBUS DP interface, 1.5 Mbit/s, 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	NEW ▶ 3UF7020-1AB01-0 NEW ▶ 3UF7020-1AU01-0		1 1	1 unit 1 unit	42J 42J
3UF7020-1A.01-0						
	SIMOCODE pro V PROFIBUS DP interface, 12 Mbit/s, 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 V PROFINET¹⁾ ETHERNET/PROFINET IO, OPC UA server and web server, 100 Mbit/s, 2 x connection to bus through RJ45, 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	NEW ▶ 3UF7011-1AB00-0 NEW ▶ 3UF7011-1AU00-0		1 1	1 unit 1 unit	42J 42J
3UF7011-1A.00-0						

¹⁾ When using an operator panel with display, the product version must be E07 or higher (from 08/2012).

SIMOCODE 3UF Motor Management and Control Devices

SIMOCODE pro 3UF7

Basic units

Version	Current setting	Width	DT	Screw terminals	⊕	PU (UNIT, SET, M)	PS*	PG
	A	mm		Article No.	Price per PU			
SIMOCODE pro (continued)								
	Current measuring modules							
	• Straight-through transformers	0.3 ... 3	45	▶	3UF7100-1AA00-0	1	1 unit	42J
		2.4 ... 25	45	▶	3UF7101-1AA00-0	1	1 unit	42J
		10 ... 100	55	▶	3UF7102-1AA00-0	1	1 unit	42J
		20 ... 200	120	▶	3UF7103-1AA00-0	1	1 unit	42J
	• Busbar connections	20 ... 200	120	▶	3UF7103-1BA00-0	1	1 unit	42J
		63 ... 630	145	▶	3UF7104-1BA00-0	1	1 unit	42J
Current/voltage measuring modules for SIMOCODE pro V								
	Voltage measuring up to 690 V If required in connection with a decoupling module							
	• Straight-through transformers	0.3 ... 3	45	▶	3UF7110-1AA00-0	1	1 unit	42J
		2.4 ... 25	45	▶	3UF7111-1AA00-0	1	1 unit	42J
		10 ... 100	55	▶	3UF7112-1AA00-0	1	1 unit	42J
		20 ... 200	120	▶	3UF7113-1AA00-0	1	1 unit	42J
	• Busbar connections	20 ... 200	120	▶	3UF7113-1BA00-0	1	1 unit	42J
		63 ... 630	145	▶	3UF7114-1BA00-0	1	1 unit	42J
	Decoupling modules							
	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		A		3UF7150-1AA00-0	1	1 unit	42J
Operator panels								
	Installation in control cabinet door or front plate, for plugging into all SIMOCODE pro basic units, 10 LEDs for status indication and user-assignable buttons for controlling the motor							
	• Light gray			▶	3UF7200-1AA00-0	1	1 unit	42J
	• Titanium gray			▶	3UF7200-1AA01-0	1	1 unit	42J
								
Operator panel with display for SIMOCODE pro V								
	Installation in control cabinet door or front plate, for plugging into SIMOCODE pro V and SIMOCODE pro V PN, 7 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			▶	3UF7210-1AA00-0	1	1 unit	42J

Notes:

System manual "SIMOCODE pro PROFIBUS" see <http://support.automation.siemens.com/WW/view/en/20017780>.

System manual "SIMOCODE pro V PROFINET" see <http://support.automation.siemens.com/WW/view/en/61896631>.

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

SIMOCODE 3UF Motor Management and Control Devices

SIMOCODE pro 3UF7

Expansion modules

Selection and ordering data

Version		DT	Screw terminals		PU (UNIT, SET, M)		PS*	PG
			Article No.		Price per PU			
Expansion modules for SIMOCODE pro V								
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. <u>Note:</u> Please order connection cable separately, see page 10/19.								
 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. 4 binary inputs and 2 relay outputs, up to 2 digital modules can be connected							
	Relay outputs	Input voltage						
	Monostable	24 V DC	▶	3UF7300-1AB00-0	1	1 unit	42J	
		110 ... 240 V AC/DC	▶	3UF7300-1AU00-0	1	1 unit	42J	
Bistable	24 V DC	▶	3UF7310-1AB00-0	1	1 unit	42J		
	110 ... 240 V AC/DC	▶	3UF7310-1AU00-0	1	1 unit	42J		
 3UF7400-1AA00-0	Analog modules							
	Basic unit can be optionally expanded with analog inputs and outputs (0/4 ... 20 mA) by means of the analog module. 2 inputs (passive) for input and 1 output for output of 0/4 ... 20 mA signals, max. 1 analog module can be connected per pro V basic unit and max. 2 analog modules per pro V PN basic unit		▶	3UF7400-1AA00-0	1	1 unit	42J	
 3UF7510-1AA00-0	Ground-fault modules¹⁾ NEW							
	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. 1 input for connecting a 3UL23 residual-current transformer, up to 1 ground-fault module can be connected <u>Note:</u> For corresponding residual-current transformers, see page 10/104.		▶	3UF7510-1AA00-0	1	1 unit	42J	
 3UF7700-1AA00-0	Temperature modules							
	Independently of the thermistor motor protection of the basic units, up to 3 analog temperature sensors can be evaluated using a temperature module. Sensor types: PT100/PT1000, KTY83/KTY84 or NTC 3 inputs for connecting up to 3 analog temperature sensors, up to 1 temperature module can be connected per pro V basic unit and max. 2 temperature modules per pro V PN basic unit		▶	3UF7700-1AA00-0	1	1 unit	42J	

¹⁾ Possible with pro V basic unit from product version E10 or pro V PN basic unit from product version E04.

Selection and ordering data

Version	DT	Screw terminals	⊕	PU (UNIT, SET, M)	PS*	PG
Article No.				Price per PU		

Expansion modules for SIMOCODE pro S

With SIMOCODE pro S, it is possible to expand the type and number of inputs and outputs. The 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 S using a connection cable; through the second system interface, the operator panel can be connected. The power supply for the expansion module is provided by the connection cable through the basic unit.

Note:

Please order connection cable separately, [see page 10/19](#).

Multifunction modules

The multifunction module is the expansion module of the SIMOCODE pro S device series with the following functions:

- 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. 1 multifunction module can be connected per pro S basic unit

Input voltage of the digital inputs:

- 24 V DC
- 110 ... 240 V AC/DC

NEW ►

3UF7600-1AB01-0

1

1 unit

42J

NEW ►

3UF7600-1AU01-0

1

1 unit

42J



3UF7600-1AU01-0

SIMOCODE 3UF Motor Management and Control Devices

SIMOCODE pro 3UF7

Fail-safe expansion modules

Selection and ordering data

Version	DT	Screw terminals	⊕	PU (UNIT, SET, M)	PS*	PG
Article No.			Price per PU			
Fail-safe expansion modules for SIMOCODE pro V						
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 1 fail-safe digital module can be connected; it can be used instead of a digital module. 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. Note: Please order connection cable separately, see page 10/19.						
DM-F Local fail-safe digital modules¹⁾						
For fail-safe disconnection using a hardware signal 2 relay enabling circuits, joint switching; 2 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: • 24 V DC • 110 ... 240 V AC/DC						
 3UF7320-1AB00-0						
► 3UF7320-1AB00-0 ► 3UF7320-1AU00-0						
1 1 unit 42J 1 1 unit 42J						
DM-F PROFIsafe fail-safe digital modules¹⁾						
For fail-safe disconnection using PROFIBUS/PROFIsafe or PROFINET/PROFIsafe 2 relay enabling circuits, joint switching; 2 relay outputs, common potential disconnected fail-safe; 1 input for feedback circuit; 3 binary standard inputs Rated control supply voltage U_s: • 24 V DC • 110 ... 240 V AC/DC						
 3UF7330-1AB00-0						
► 3UF7330-1AB00-0 ► 3UF7330-1AU00-0						
1 1 unit 42J 1 1 unit 42J						

¹⁾ Only possible with SIMOCODE pro V basic unit, product version E07 and higher (from 05/2011) or SIMOCODE pro V PN basic unit.

Note:

System manual "SIMOCODE pro Safety Fail-Safe Digital Modules" [see](#)
<http://support.automation.siemens.com/WW/view/en/50564852>.

SIMOCODE 3UF Motor Management and Control Devices

SIMOCODE pro 3UF7

Accessories

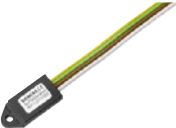
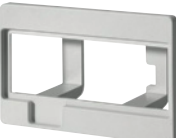
Selection and ordering data

Version	DT	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Connection cables (essential accessory)						
 Connection cables In different lengths for connecting basic unit, current measuring module, current/voltage measuring module, operator panel or expansion modules or decoupling module						
3UF7932-0AA00-0						
Version	Length					
Flat	0.025 m	▶ 3UF7930-0AA00-0		1	1 unit	42J
Flat	0.1 m	▶ 3UF7931-0AA00-0		1	1 unit	42J
Flat	0.3 m	▶ 3UF7935-0AA00-0		1	1 unit	42J
Flat	0.5 m	▶ 3UF7932-0AA00-0		1	1 unit	42J
Round	0.5 m	▶ 3UF7932-0BA00-0		1	1 unit	42J
Round	1.0 m	▶ 3UF7937-0BA00-0		1	1 unit	42J
Round	2.5 m	▶ 3UF7933-0BA00-0		1	1 unit	42J
PC cables and adapters						
 RS 232 PC cables For connecting to the serial interface of a PC/PG, for communication with SIMOCODE pro through the system interface						
3UF7940-0AA00-0		▶ 3UF7940-0AA00-0		1	1 unit	42J
 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		▶ 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 3UF7						
3UF7941-0AA00-0	B	▶ 3UF7946-0AA00-0		1	1 unit	42J
Memory modules						
 This enables transmission to a new system, e.g. when a device is replaced, without the need for additional aids or detailed knowledge of the device.						
3UF7900-0AA00-0		▶ Memory module for SIMOCODE pro C, SIMOCODE pro S and SIMOCODE pro V		1	1 unit	42J
		For saving the complete parameterization of a SIMOCODE pro C, SIMOCODE pro S or SIMOCODE pro V system				
		▶ Memory module for SIMOCODE pro V PROFINET		1	1 unit	42J
		For saving the complete parameterization of a SIMOCODE pro V PROFINET system				
Interface covers						
 Interface covers For system interface						
3UF7950-0AA00-0		▶		1	5 units	42J
		• Light gray				
		• Titanium gray	NEW A	1	5 units	42F
Addressing plugs						
 Addressing plugs For assigning the PROFIBUS address without using a PC/PG to SIMOCODE pro through the system interface						
3UF7910-0AA00-0		▶ 3UF7910-0AA00-0		1	1 unit	42J

SIMOCODE 3UF Motor Management and Control Devices

SIMOCODE pro 3UF7

Accessories

Version	DT	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Accessories for motor control center						
 3UF7902-0AA00-0	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.					
		Initialization module¹⁾		1	1 unit	42J
		For automatic parameterization of SIMOCODE pro S, SIMOCODE pro V and SIMOCODE pro V PROFINET, for fixed-mounted installation in switchboards				
		Y connection cable¹⁾				
		For use in conjunction with the initialization module; connects the basic unit, current measuring module or current/voltage measuring module, and initialization module				
	System interface length	Open cable end				
	0.1 m	1.0 m		1	1 unit	42J
	0.5 m	1.0 m		1	1 unit	42J
	1.0 m	1.0 m		1	1 unit	42J
Bus connection terminals						
 3UF7960-0AA00-0		Bus connection terminal		1	1 unit	42J
		For shield support and strain relief of the PROFIBUS cable on a SIMOCODE pro S				
Door adapters						
 3UF7920-0AA00-0		Door adapters		1	1 unit	42J
		For external connection of the system interface, e.g. outside a control cabinet				
Adapters for operator panel						
 3UF7922-0AA00-0		Adapters for operator panel		1	1 unit	42J
		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				
Labeling strips						
 3UF7925-0AA02-0		Labeling strips				
		• For pushbuttons of the 3UF720 operator panel		100	400 units	42J
		• For pushbuttons of the 3UF721 operator panel with display		100	600 units	42J
		• For LEDs of the 3UF720 operator panel		100	1 200 units	42J
Push-in lugs						
 3RB2928-0B		Push-in lugs for screw fixing				
		e.g. on mounting plate, 2 units required per device				
		• Can be used for 3UF71.0, 3UF71.1 and 3UF71.2	A	100	10 units	41E
		• Can be used for 3UF700, 3UF701, 3UF73, 3UF74, 3UF75 and 3UF77	B	1	10 units	41H
		• Can be used for 3UF7020, 3UF7600	A	1	10 units	41L

¹⁾ Possible with pro V basic unit, product version E09 (11/2012) and higher, pro S basic unit or pro V PN basic unit.

Version	DT	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Terminal covers						
 3RT1956-4EA1	Covers for cable lugs and busbar connections					
	- Length 100 mm, can be used for 3UF71.3-1BA00-0 - Length 120 mm, can be used for 3UF71.4-1BA00-0	▶	3RT1956-4EA1	1	1 unit	41B
 3RT1956-4EA2	Covers for box terminals					
	- Length 25 mm, can be used for 3UF71.3-1BA00-0 - Length 30 mm, can be used for 3UF71.4-1BA00-0	▶	3RT1956-4EA2	1	1 unit	41B
	Covers for screw terminals					
	Between contactor and current measuring module or current/voltage measuring module for direct mounting					
	- Can be used for 3UF71.3-1BA00-0 - Can be used for 3UF71.4-1BA00-0	▶	3RT1956-4EA3	1	1 unit	41B
		▶	3RT1966-4EA3	1	1 unit	41B
Box terminal blocks						
 3RT195.-4G	Box terminal blocks					
	For round and ribbon cables					
	- Up to 70 mm², can be used for 3UF71.3-1BA00-0 - Up to 120 mm², can be used for 3UF71.3-1BA00-0 - Up to 240 mm², can be used for 3UF71.4-1BA00-0	▶	3RT1955-4G	1	1 unit	41B
		▶	3RT1956-4G	1	1 unit	41B
		▶	3RT1966-4G	1	1 unit	41B
Bus termination modules						
 3UF1900-1KA00	Bus termination modules					
	With separate control supply voltage for bus termination following the last unit on the bus line					
	Supply voltage:					
	115/230 V AC 24 V DC	C	3UF1900-1KA00	1	1 unit	42J
	C	3UF1900-1KB00	1	1 unit	42J	

SIMOCODE 3UF Motor Management and Control Devices

SIMOCODE pro 3UF7

Accessories

Parameterization and service software for SIMOCODE pro 3UF7

- Delivered without PC cable

Version	DT	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
SIMOCODE ES (TIA Portal) V12 Basic						
	Floating License for one user Engineering software, software and documentation on DVD, 6 languages (German/English/French/Italian/Spanish/Chinese), for all SIMOCODE pro with PROFIBUS, online functions through system interface)					
		• License key on USB stick, Class A	NEW ▶	3ZS1322-4CC10-0YA5	1	1 unit 42J
		• License key download, Class A	NEW ▶	3ZS1322-4CE10-0YB5	1	1 unit 42J
SIMOCODE ES (TIA Portal) V12 Standard						
Floating License for one user Engineering software, software and documentation on DVD, 6 languages (German/English/French/Italian/Spanish/Chinese), for all SIMOCODE pro with PROFIBUS, online functions through system interface parameterizing with integrated graphics editor (CFC-based)						
		• License key on USB stick, Class A	NEW ▶	3ZS1322-5CC10-0YA5	1	1 unit 42J
		• License key download, Class A	NEW ▶	3ZS1322-5CE10-0YB5	1	1 unit 42J
		Upgrade for SIMOCODE ES 2007	NEW A	3ZS1322-5CC10-0YE5	1	1 unit 42J
Floating license for one user, engineering software, software and documentation on DVD, license key on USB stick, Class A, 6 languages (German/English/French/Italian/Spanish/Chinese), combo license for parallel use of SIMOCODE ES 2007 and SIMOCODE ES V12, for all SIMOCODE pro with PROFIBUS, online functions through the system interface, parameterizing with integrated graphics editor (CFC-based)						
		Powerpack for SIMOCODE ES V12 Basic	NEW A	3ZS1322-5CC10-0YD5	1	1 unit 42J
Floating license for one user, engineering software, license key on USB stick, Class A, 6 languages (German/English/French/Italian/Spanish/Chinese), for all SIMOCODE pro with PROFIBUS, online functions through the system interface, parameterizing with integrated graphics editor (CFC-based)						
		Software Update Service	NEW ▶	3ZS1322-5CC10-0YL5	1	1 unit 42J
For 1 year with automatic extension, assuming the current software version is in use, engineering software, software and documentation on DVD, online functions through the system interface, parameterizing with integrated graphics editor (CFC-based)						

Notes:

Please order PC cable separately, [see page 10/19](#).

More information [see Chapter 14 "Parameterization, Configuration and Visualization with SIRIUS"](#) or Industry Mall.

SIMOCODE 3UF Motor Management and Control Devices

SIMOCODE pro 3UF7

Accessories

Version	DT	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
SIMOCODE ES (TIA Portal) V12 Premium						
Floating License for one user						
Engineering software, software and documentation on DVD, 6 languages (German/English/French/Italian/Spanish/Chinese), for all SIMOCODE pro with PROFIBUS, online functions through system interface and PROFIBUS, parameterizing with integrated graphics editor (CFC-based)						
• License key on USB stick, Class A	NEW	3ZS1322-6CC10-0YA5		1	1 unit	42J
• License key download, Class A	NEW	3ZS1322-6CE10-0YB5		1	1 unit	42J
Upgrade for SIMOCODE ES 2007	NEW A	3ZS1322-6CC10-0YE5		1	1 unit	42J
Floating license for one user, engineering software, software and documentation on DVD, license key on USB stick, Class A, 6 languages (German/English/French/Italian/Spanish/Chinese), combo license for parallel use of SIMOCODE ES 2007 and SIMOCODE ES V12, for all SIMOCODE pro with PROFIBUS, online functions through the system interface and PROFIBUS, parameterizing with integrated graphics editor (CFC-based)						
Powerpack for SIMOCODE ES V12 Standard	NEW A	3ZS1322-6CC10-0YD5		1	1 unit	42J
Floating license for one user, engineering software, license key on USB stick, Class A, 6 languages (German/English/French/Italian/Spanish/Chinese), for all SIMOCODE pro with PROFIBUS, online functions through system interface and PROFIBUS, parameterizing with integrated graphics editor (CFC-based)						
Software Update Service	NEW	3ZS1322-6CC10-0YL5		1	1 unit	42J
For 1 year with automatic extension, assuming the current software version is in use, engineering software, software and documentation on DVD, online functions through the system interface and PROFIBUS, parameterizing with integrated graphics editor (CFC-based)						

Notes:

Please order PC cable separately, [see page 10/19](#).

More information [see Chapter 14 "Parameterization, Configuration and Visualization with SIRIUS"](#) or [Industry Mall](#).

SIMOCODE 3UF Motor Management and Control Devices

SIMOCODE pro 3UF7

Accessories

Version	DT	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
SIMOCODE ES 2007 Basic						
	Floating License for one user					
	Engineering software, software and documentation on CD, 3 languages (German/English/French), communication through system interface					
	• License key on USB stick, Class A • License key download, Class A					
		▶ 3ZS1312-4CC10-0YA5		1	1 unit	42J
		▶ 3ZS1312-4CE10-0YB5		1	1 unit	42J
SIMOCODE ES 2007 Standard						
	Floating License for one user					
	Engineering software, software and documentation on CD, 3 languages (German/English/French), communication through system interface, integrated graphics editor					
	• License key on USB stick, Class A • License key download, Class A					
		▶ 3ZS1312-5CC10-0YA5		1	1 unit	42J
		▶ 3ZS1312-5CE10-0YB5		1	1 unit	42J
Upgrade for SIMOCODE ES 2004 and later		A 3ZS1312-5CC10-0YE5		1	1 unit	42J
Powerpack for SIMOCODE ES 2007 Basic		A 3ZS1312-5CC10-0YD5		1	1 unit	42J
Software Update Service		▶ 3ZS1312-5CC10-0YL5		1	1 unit	42J

Notes:

Please order PC cable separately, [see page 10/19](#).

More information [see Chapter 14 "Parameterization, Configuration and Visualization with SIRIUS" or Industry Mall](#).

Version	DT	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
SIMOCODE ES 2007 Premium						
Floating License for one user						
Engineering software, software and documentation on CD, 3 languages (German/English/French), communication through PROFIBUS/PROFINET or system interface, integrated graphics editor, STEP7 Object Manager						
• License key on USB stick, Class A	►	3ZS1312-6CC10-0YA5		1	1 unit	42J
• License key download, Class A	►	3ZS1312-6CE10-0YB5		1	1 unit	42J
Upgrade for SIMOCODE ES 2004 and later	A	3ZS1312-6CC10-0YE5		1	1 unit	42J
Floating license for one user, engineering software, software and documentation on CD, license key on USB stick, Class A, 3 languages (German/English/French), communication through PROFIBUS/PROFINET or system interface, integrated graphics editor, STEP7 Object Manager						
Powerpack for SIMOCODE ES 2007 Standard	A	3ZS1312-6CC10-0YD5		1	1 unit	42J
Floating license for one user, engineering software, license key on USB stick, Class A, 3 languages (German/English/French), communication through PROFIBUS/PROFINET or system interface, integrated graphics editor, STEP7 Object Manager						
Software Update Service	►	3ZS1312-6CC10-0YL5		1	1 unit	42J
For 1 year with automatic extension, assuming the current software version is in use, engineering software, software and documentation on CD, communication through PROFIBUS/PROFINET or system interface, integrated graphics editor, STEP7 Object Manager						

Notes:

Please order PC cable separately, [see page 10/19](#).

More information [see Chapter 14 "Parameterization, Configuration and Visualization with SIRIUS"](#) or Industry Mall.

SIMOCODE 3UF Motor Management and Control Devices

SIMOCODE pro 3UF7

Accessories

Version	DT	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
SIMOCODE pro block library for SIMATIC PCS 7 Version V8 with Advanced Process Library (APL)						
 3ZS1632-1XX02-0YA0	Engineering software V8	NEW ▶	3ZS1632-1XX02-0YA0	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), German/English Scope of supply: AS modules and faceplates for integrating SIMOCODE pro into the PCS 7 process control system, with Advanced Process Library, for PCS 7 version V8.0 Type of delivery: Software and documentation on CD, one license for one engineering station, one license for one automation system					
	Runtime license V8	NEW ▶	3ZS1632-2XX02-0YB0	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 V8 within a plant Type of delivery: One license for one automation system, without software and documentation						
	Upgrade for PCS 7 block library SIMOCODE pro, V6.0 or V7 to version SIMOCODE pro V8	NEW A	3ZS1632-1XX02-0YE0	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), German/English Scope of supply: AS modules and faceplates for integrating SIMOCODE pro into the PCS 7 process control system, with Advanced Process Library, for PCS 7 version V8.0 Type of delivery: Software and documentation on CD, one license for one engineering station, one license for one automation system					

Notes:

Please order PC cable separately, [see page 10/19](#).

More information [see Chapter 14 "Parameterization, Configuration and Visualization with SIRIUS" or Industry Mall](#).

SIMOCODE 3UF Motor Management and Control Devices

SIMOCODE pro 3UF7

Accessories

Version	DT	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
SIMOCODE pro block library for SIMATIC PCS 7 Version 7						
 3UF7982-0AA00-0		Engineering software V7		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), German/English/French Scope of supply: AS modules and faceplates for integrating SIMOCODE pro into the PCS 7 process control system, for PCS7 version V7.0/V7.1 Type of delivery: Software and documentation on CD, one license for one engineering station, one license for one automation system				
		Runtime license V7		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 system, without software and documentation				
	A	Upgrade for PCS 7 block library SIMOCODE pro, V6.0 or V6.1 to version SIMOCODE pro V7.0/V7.1		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), German/English/French Scope of supply: AS modules and faceplates for integrating SIMOCODE pro into the PCS 7 process control system, for PCS7 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 system				
		Engineering software migration V7-V8		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 The engineering software migration V7-V8 can be installed directly onto a system with PCS 7 version V8.0; 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), German/English/French Scope of supply: AS modules and faceplates for integrating SIMOCODE pro into the PCS 7 process control system, for PCS 7 version V8.0 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				

Notes:

Please order PC cable separately, [see page 10/19](#).

More information [see Chapter 14 "Parameterization, Configuration and Visualization with SIRIUS" or Industry Mall](#).

Programming and Operating Manual SIMOCODE pro Library for PCS 7 [see](#)
<http://support.automation.siemens.com/WW/view/en/49963525>.

SIMOCODE 3UF Motor Management and Control Devices

3UF18 current transformers for overload protection

Overview

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

Mounting type		Operating range	DT	Screw terminals		PU (UNIT, SET, M)	PS*	PG
		A		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	0.25 ... 2.5 ¹⁾	C	3UF1843-1BA00		1	1 unit	42J
		1.25 ... 12.5 ¹⁾	C	3UF1843-2AA00		1	1 unit	42J
		2.5 ... 25 ¹⁾	C	3UF1843-2BA00		1	1 unit	42J
		12.5 ... 50	C	3UF1845-2CA00		1	1 unit	42J
		16 ... 65	C	3UF1847-2DA00		1	1 unit	42J
		25 ... 100	C	3UF1848-2EA00		1	1 unit	42J
3UF1843								
For mounting onto contactors and stand-alone installation								
	Screw fixing	32 ... 130	C	3UF1850-3AA00		1	1 unit	42J
		50 ... 200	C	3UF1852-3BA00		1	1 unit	42J
		63 ... 250	C	3UF1854-3CA00		1	1 unit	42J
		100 ... 400	C	3UF1856-3DA00		1	1 unit	42J
		125 ... 500	C	3UF1857-3EA00		1	1 unit	42J
		160 ... 630	C	3UF1868-3FA00		1	1 unit	42J
		205 ... 820	C	3UF1868-3GA00		1	1 unit	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	DT	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)					
	3UF1845	D	3TX7446-0A	1	1 unit	41B
	3UF1848	D	3TX7466-0A	1	1 unit	41B
	3UF1850, 3UF1852	B	3TX7506-0A	1	1 unit	41B
	3UF1854 to 3UF1857	B	3TX7536-0A	1	2 units	41B
	3UF1868-3FA00	B	3TX7686-0A	1	1 unit	41B
	3UF1868-3GA00	B	3TX7696-0A	1	1 unit	41B
For covering the screw terminal for direct mounting on contactor (cover required per contactor/transformer combination)						
3UF1848	D	3TX7466-0B	1	1 unit	41B	
3UF1850, 3UF1852	D	3TX7506-0B	1	1 unit	41B	
3UF1854 to 3UF1857	D	3TX7536-0B	1	1 unit	41B	
3UF1868-3FA00	C	3TX7686-0B	1	1 unit	41B	
3UF1868-3GA00	C	3TX7696-0B	1	1 unit	41B	

Overview



LOGO! logic modules

LOGO! logic modules

- The compact, user-friendly, and low-cost solution for simple control tasks
- Compact, user-friendly, can be used universally without accessories
- All in one: The display and operator panel are integrated
- 36 different functions can be linked at a press of a button or with PC software; up to 130 times in total
- Functions can be changed simply with the press of a button. no complicated rewiring

Application

The LOGO! logic module is the user-friendly, low-cost solution for simple control tasks.

LOGO! is universally applicable, e.g.:

- Building installation and wiring (lighting, shutters, awnings, doors, access control, barriers, ventilation systems, etc.)
- Control cabinet installation
- Machine and device construction (pumps, small presses, compressors, hydraulic lifts, conveyors, etc.)
- Special controls for conservatories and greenhouses
- Signal preprocessing for other controllers

The LOGO! Modular logic modules can be expanded easily for each application.

SIPLUS LOGO!

- The control system for use in the toughest ambient conditions
- With extended temperature range from -40/-25 °C to +70 °C
- Use under medial loading (corrosive gas atmosphere)
- Condensation permissible
- With the service-proven PLC technology from LOGO!
- User-friendly handling, programming, maintenance and service
- Ideal for use in vehicle manufacturing, environmental engineering, mining, chemical plants, conveyor systems, the food industry, etc.

Accessories:

- With the front panel assembly kit, mounting the logic modules is easy and safe also in front panels, with degree of protection IP65 possible.
- To ensure safe operation at a combustion engine battery it may be necessary to install a SIPLUS upriver voltage reducer between the battery and SIPLUS LOGO!.

Information on LOGO! can be found in Catalog ST 70:

www.siemens.com/simatic/printmaterial

or at

www.siemens.com/siplus-extreme

Brochures to assist in the selection of SIMATIC products can be found at

www.siemens.com/simatic/printmaterial

Marine approvals

American Bureau of Shipping, Bureau Veritas, Det Norske Veritas, Germanischer Lloyd, Lloyds Register of Shipping; Polski Rejestr Statków etc.

LOGO! Modular basic versions

Overview



LOGO! Modular basic versions

- The space-saving basic versions
- Interface for connecting expansion modules, max. 24 digital inputs, 16 digital outputs, 8 analog inputs and 2 analog outputs can be addressed
- With connection option for LOGO! TD text display (can be connected to all LOGO! -0BA6 basic versions)

LOGO! -0BA7 versions

- Ethernet interface for communication with SIMATIC controller, SIMATIC panel and PC
- Networking of up to 8 LOGO! units
- Use of standard SD card or SIMATIC memory card

Selection and ordering data

Version	DT	Screw terminals	⊕	PU (UNIT, SET, M)	PS*	PG
		Article No.	Price per PU			
LOGO! Modular basic versions (-0BA6)						
LOGO! logic modules 24C Control supply voltage 24 V DC, 8 digital inputs 24 V DC, of which 4 can be used as analog inputs (0 to 10 V), 4 digital outputs 24 V DC, 0.3 A, with integrated time switch; 200 function blocks can be combined, modular expandability	A	6ED1052-1CC01-0BA6		1	1 unit	200
LOGO! logic modules 12/24RC Control supply voltage 12/24 V DC, 8 digital inputs 12/24 V DC, of which 4 can be used as analog inputs (0 ... 10 V), 4 relay outputs 10 A, integrated time switch, 200 function blocks can be combined, modular expandability	A	6ED1052-1MD00-0BA6		1	1 unit	200
LOGO! logic modules 24RC Control supply voltage 24 V AC/DC, 8 digital inputs 24 V AC/DC, 4 relay outputs 10 A, integrated time switch, 200 function blocks can be combined, modular expandability	A	6ED1052-1HB00-0BA6		1	1 unit	200
LOGO! logic modules 230RC Control supply voltage 115/230 V AC/DC, 8 digital inputs 115/230 V AC/DC, 4 relay outputs 10 A, integrated time switch, 200 function blocks can be combined, modular expandability	A	6ED1052-1FB00-0BA6		1	1 unit	200
LOGO! Modular basic versions (-0BA7)						
LOGO! logic modules 12/24RCE Control supply voltage 12/24 V DC, 8 digital inputs 12/24 V DC, of which 4 can be used as analog inputs (0 ... 10 V), 4 relay outputs 10 A, integrated time switch, 400 function blocks can be combined, Ethernet interface, modular expandability	A	6ED1052-1MD00-0BA7		1	1 unit	200
LOGO! logic modules 230RCE Control supply voltage 115/230 V AC/DC, 8 digital inputs 115/230 V AC/DC, 4 relay outputs 10 A, integrated time switch, 400 function blocks can be combined, Ethernet interface, modular expandability	A	6ED1052-1FB00-0BA7		1	1 unit	200

For accessories see page 10/39.

SIPLUS LOGO! Modular basic versions

Overview



SIPLUS LOGO! Modular basic versions

- The space-saving basic versions
- Interface for connecting expansion modules, max. 24 digital inputs, 16 digital outputs, 8 analog inputs and 2 analog outputs can be addressed
- With connection option for LOGO! TD text display (can be connected to all LOGO! -0BA6 basic versions)

SIPLUS LOGO! -2BA7 versions

- Ethernet interface for communication with SIMATIC controller, SIMATIC panel and PC
- Networking of up to 8 LOGO! units
- Use of standard SD card or SIMATIC memory card

Note:

SIPLUS extreme products are based upon Siemens Industry standard products. The content listed here was taken over from the relevant standard products. Information specific to SIPLUS extreme has been added.

Selection and ordering data

Version	DT	Screw terminals	⊕	PU (UNIT, SET, M)	PS*	PG
		Article No.	Price per PU			
SIPLUS LOGO! Modular basic versions (-2BA6) – extended temperature range and medial loading						
SIPLUS LOGO! 24 Control supply voltage 24 V DC, 8 digital inputs 24 V DC, of which 4 can be used as analog inputs (0 to 10 V), 4 digital outputs 24 V DC, 0.3 A, with integrated time switch; 200 function blocks can be combined, modular expandability	D	6AG1052-1CC01-2BA6		1	1 unit	470
SIPLUS LOGO! 12/24RC Control supply voltage 12/24 V DC, 8 digital inputs 12/24 V DC, of which 4 can be used as analog inputs (0 ... 10 V), 4 relay outputs 10 A, integrated time switch, 200 function blocks can be combined, modular expandability	D	6AG1052-1MD00-2BA6		1	1 unit	470
SIPLUS LOGO! 24RC Control supply voltage 24 V AC/DC, 8 digital inputs 24 V AC/DC, 4 relay outputs 10 A, integrated time switch, 200 function blocks can be combined, modular expandability	D	6AG1052-1HB00-2BA6		1	1 unit	470
SIPLUS LOGO! 230RC Control supply voltage 115/230 V AC/DC, 8 digital inputs 115/230 V AC/DC, 4 relay outputs 10 A, integrated time switch, 200 function blocks can be combined, modular expandability	D	6AG1052-1FB00-2BA6		1	1 unit	470
SIPLUS LOGO! Modular basic versions (-2BA7) – extended temperature range and medial loading						
SIPLUS LOGO! 12/24RCE Control supply voltage 12/24 V DC, 8 digital inputs 12/24 V DC, of which 4 can be used as analog inputs (0 to 10 V), 4 relay outputs 10 A, integrated time switch; 400 function blocks can be combined, Ethernet interface, modular expandability	NEW D	6AG1052-1MD00-2BA7		1	1 unit	470
SIPLUS LOGO! 230RCE Control supply voltage 115/230 V AC/DC, 8 digital inputs 115/230 V AC/DC, 4 relay outputs 10 A, integrated time switch; 400 function blocks can be combined, Ethernet interface, modular expandability	NEW D	6AG1052-1FB00-2BA7		1	1 unit	470

For accessories see page 10/39.

LOGO! Modular pure versions

Overview



LOGO! Modular pure versions

- The cost-optimized basic versions
- Interface for connecting expansion modules, max. 24 digital inputs, 16 digital outputs, 8 analog inputs and 2 analog outputs can be addressed
- With connection option for LOGO! TD text display (can be connected to all LOGO! -0BA6 basic versions)

Selection and ordering data

Version	DT	Screw terminals	⊕	PU (UNIT, SET, M)	PS*	PG
		Article No.	Price per PU			
LOGO! Modular pure versions						
LOGO! logic modules 24Co Control supply voltage 24 V DC, 8 digital inputs 24 V DC, of which 4 can be used as analog inputs (0 ... 10 V), 4 digital outputs 24 V DC, 0.3 A; integrated time switch, without display and keyboard, 200 function blocks can be combined, modular expandability	A	6ED1052-2CC01-0BA6		1	1 unit	200
LOGO! logic modules 12/24RCo Control supply voltage 12/24 V DC, 8 digital inputs 12/24 V DC, of which 4 can be used as analog inputs (0 ... 10 V), 4 relay outputs 10 A, integrated time switch, without display and keyboard, 200 function blocks can be combined, modular expandability	A	6ED1052-2MD00-0BA6		1	1 unit	200
LOGO! logic modules 24RCo Control supply voltage 24 V AC/DC, 8 digital inputs 24 V AC/DC, 4 relay outputs 10 A, integrated time switch, without display and keyboard, 200 function blocks can be combined, modular expandability	A	6ED1052-2HB00-0BA6		1	1 unit	200
LOGO! logic modules 230RCo Control supply voltage 115/230 V AC/DC, 8 digital inputs 115/230 V AC/DC, 4 relay outputs 10 A, integrated time switch, without display and keyboard, 200 function blocks can be combined, modular expandability	A	6ED1052-2FB00-0BA6		1	1 unit	200

For accessories see [page 10/39](#).

SIPLUS LOGO! Modular pure versions

Overview



SIPLUS LOGO! Modular pure versions

- The cost-optimized basic versions
- Interface for connecting expansion modules, max. 24 digital inputs, 16 digital outputs, 8 analog inputs and 2 analog outputs can be addressed
- With connection option for LOGO! TD text display (can be connected to all LOGO! -0BA6 basic versions)

Note:

SIPLUS extreme products are based upon Siemens Industry standard products. The content listed here was taken over from the relevant standard products. Information specific to SIPLUS extreme has been added.

Selection and ordering data

Version	DT	Screw terminals	⊕	PU (UNIT, SET, M)	PS*	PG
		Article No.	Price per PU			
SIPLUS LOGO! Modular pure versions – extended temperature range and medial loading						
SIPLUS LOGO! 24o Control supply voltage 24 V DC, 8 digital inputs 24 V DC, of which 4 can be used as analog inputs (0 ... 10 V), 4 digital outputs 24 V DC, 0.3 A; integrated time switch, without display and keyboard, 200 function blocks can be combined, modular expandability	D	6AG1052-2CC01-2BA6		1	1 unit	470
SIPLUS LOGO! 12/24RCo Control supply voltage 12/24 V DC, 8 digital inputs 12/24 V DC, of which 4 can be used as analog inputs (0 ... 10 V), 4 relay outputs 10 A, integrated time switch, without display and keyboard, 200 function blocks can be combined, modular expandability	D	6AG1052-2MD00-2BA6		1	1 unit	470
SIPLUS LOGO! 24RCo Control supply voltage 24 V AC/DC, 8 digital inputs 24 V AC/DC, 4 relay outputs 10 A, integrated time switch, without display and keyboard, 200 function blocks can be combined, modular expandability	D	6AG1052-2HB00-2BA6		1	1 unit	470
SIPLUS LOGO! 230RCo Control supply voltage 115/230 V AC/DC, 8 digital inputs 115/230 V AC/DC, 4 relay outputs 10 A, integrated time switch, without display and keyboard, 200 function blocks can be combined, modular expandability	D	6AG1052-2FB00-2BA6		1	1 unit	470

For accessories [see page 10/39](#).

LOGO! Modular expansion modules

Overview



LOGO! Modular expansion modules

- Expansion modules for connection to LOGO! Modular
- With digital inputs and outputs, analog inputs or analog outputs

Selection and ordering data

Version	DT	Screw terminals	⊕	PU (UNIT, SET, M)	PS*	PG
		Article No.	Price per PU			
LOGO! Modular expansion modules						
LOGO! DM8 24 Control supply voltage 24 V DC, 4 digital inputs 24 V DC, 4 digital outputs 24 V DC, 0.3 A	A	6ED1055-1CB00-0BA0		1	1 unit	200
LOGO! DM16 24 Control supply voltage 24 V DC, 8 digital inputs 24 V DC, 8 digital outputs 24 V DC, 0.3 A	A	6ED1055-1CB10-0BA0		1	1 unit	200
LOGO! DM8 12/24R Control supply voltage 12/24 V DC, 4 digital inputs 12/24 V DC, 4 relay outputs 5 A	A	6ED1055-1MB00-0BA1		1	1 unit	200
LOGO! DM8 24R Control supply voltage 24 V AC/DC, 4 digital inputs 24 V AC/DC, 4 relay outputs 5 A	A	6ED1055-1HB00-0BA0		1	1 unit	200
LOGO! DM16 24R Control supply voltage 24 V DC, 8 digital inputs 24 V DC, 8 relay outputs 5 A	A	6ED1055-1NB10-0BA0		1	1 unit	200
LOGO! DM8 230R Control supply voltage 115/230 V AC/DC, 4 digital inputs 115/230 V AC/DC, 4 relay outputs 5 A	A	6ED1055-1FB00-0BA1		1	1 unit	200
LOGO! DM16 230R Control supply voltage 115/230 V AC/DC, 8 digital inputs 115/230 V AC/DC, 8 relay outputs 5 A	A	6ED1055-1FB10-0BA0		1	1 unit	200
LOGO! AM2 Control supply voltage 12/24 V DC, 2 analog inputs 0 ... 10 V or 0 ... 20 mA, 10 bit resolution	A	6ED1055-1MA00-0BA0		1	1 unit	200
LOGO! AM2 PT 100 Control supply voltage 12/24 V DC, 2 analog inputs PT100, temperature range -50 °C ... 200 °C	A	6ED1055-1MD00-0BA1		1	1 unit	200
LOGO! AM2 AQ Control supply voltage 24 V DC, 2 analog outputs 0 ... 10 V, 0/4 ... 20 mA	A	6ED1055-1MM00-0BA1		1	1 unit	200

For accessories see page 10/39.

SIPLUS LOGO! Modular expansion modules

Overview



SIPLUS LOGO! Modular expansion modules

- Expansion modules for connection to LOGO! Modular
- With digital inputs and outputs, analog inputs or analog outputs

Note:

SIPLUS extreme products are based upon Siemens Industry standard products. The content listed here was taken over from the relevant standard products. Information specific to SIPLUS extreme has been added.

Selection and ordering data

Version	DT	Screw terminals	PU (UNIT, SET, M)	PS*	PG
Article No.		Price per PU			
SIPLUS LOGO! Modular expansion modules – extended temperature range and medial loading					
SIPLUS LOGO! DM8 24 Control supply voltage 24 V DC, 4 digital inputs 24 V DC, 4 digital outputs 24 V DC, 0.3 A, Temperature range -40 ... +70 °C	D	6AG1055-1CB00-2BY0	1	1 unit	470
SIPLUS LOGO! DM8 12/24 Control supply voltage 12/24 V DC, 4 digital inputs 12/24 V DC, 4 digital outputs 24 V DC, 0.3 A, Temperature range -40 ... +70 °C	D	6AG1055-1PB00-2BY0	1	1 unit	470
SIPLUS LOGO! DM8 24R Control supply voltage 24 V AC/DC, 4 digital inputs 24 V AC/DC, 4 relay outputs 5 A, Temperature range -40 ... +70 °C	D	6AG1055-1HB00-2BY0	1	1 unit	470
SIPLUS LOGO! DM8 12/24R Control supply voltage 12/24 V DC, 4 digital inputs 12/24 V DC, 4 relay outputs 5 A, temperature range -40 ... +70 °C	D	6AG1055-1MB00-2BY1	1	1 unit	470
SIPLUS LOGO! DM8 230R Control supply voltage 115/230 V AC/DC, 4 digital inputs 115/230 V AC/DC, 4 relay outputs 5 A, temperature range -40 ... +70 °C	D	6AG1055-1FB00-2BY1	1	1 unit	470
SIPLUS LOGO! AM2 Control supply voltage 12/24 V DC, 2 analog inputs 0 ... 10 V or 0 ... 20 mA, 10 bit resolution, temperature range -40 ... +70 °C	D	6AG1055-1MA00-2BY0	1	1 unit	470
SIPLUS LOGO! AM2 AQ Control supply voltage 24 V DC, 2 analog inputs 0 ... 10 V, 0/4 ... 20 mA, 10 bit resolution, temperature range -40 ... +70 °C	D	6AG1055-1MM00-2BY1	1	1 unit	470
SIPLUS LOGO! DM16 24R Control supply voltage 24 V DC, 8 digital outputs 24 V DC, 8 relay outputs 5 A, temperature range -25 ... +70 °C	D	6AG1055-1NB10-2BA0	1	1 unit	470

For accessories [see page 10/39](#).