

Monitoring and control devices



	Price groups PG 41B, 41E, 41F, 41H, 41L, 42F, 42J		<u>SIRIUS 3RR21, 3RR22 monitoring relays for mounting on 3RT2 contactors</u>
10/2	Introduction	10/57	Current and active current monitoring <u>SIRIUS 3RR24 monitoring relays for mounting on 3RT2 contactors for IO-Link</u>
	SIMOCODE 3UF motor management and control devices <u>SIMOCODE M 3UF8 motor management and control devices</u> NEW	10/65	Current and active current monitoring <u>SIRIUS 3UG5 monitoring relays for stand-alone installation</u>
10/5	General data	10/72	General data
10/11	Basic units	10/76	<u>Line monitoring</u> NEW
10/13	Accessories <u>SIMOCODE pro 3UF7 motor management and control devices</u>	10/83	<u>Voltage monitoring</u> NEW
10/15	General data	10/87	<u>Current monitoring</u> NEW
10/22	Basic units	10/90	Current, active current, voltage, power factor, and power monitoring NEW
10/25	Expansion modules		Residual current monitoring
10/27	Fail-safe expansion modules	10/97	- <u>Residual current monitoring relays</u> NEW
10/28	Accessories <u>Software</u>	10/101	- 3UL23 residual-current transformers
14/13	SIMOCODE ES (TIA Portal)	10/102	<u>Level monitoring</u> NEW
14/17	SIMOCODE pro block library for SIMATIC PCS 7 <u>3UF18 current transformers for overload protection</u>	10/106	<u>Speed monitoring</u> NEW
10/31	Basic units and accessories	10/110	DC load monitoring
10/32	LOGO! logic modules	10/115	Accessories <u>SIRIUS 3UG45, 3UG46 monitoring relays for stand-alone installation</u>
	Relays <u>Timing relays</u>	10/116	Insulation monitoring <u>SIRIUS 3RS2 temperature monitoring relays</u>
10/33	General data	10/121	General data
10/34	SIRIUS 3RP25 timing relays, 17.5 mm and 22.5 mm	10/129	Basic units
10/46	SIRIUS 3RP20 timing relays, 45 mm	10/130	Accessories <u>SIRIUS 3RN2 thermistor motor protection</u>
10/52	7PV15 timing relays, 17.5 mm	10/131	General data
3/97	SIRIUS 3RA28 solid-state time-delay auxiliary switches for mounting on 3RT2 contactors and 3RH2 contactor relays	10/138	Basic units
3/101	SIRIUS 3RA28 function modules for mounting on 3RT2 contactors and 3RH2 contactor relays	10/139	Accessories <u>Coupling relays and signal converters</u>
		5/1	Coupling relays
		3/136	3TG10 power relays/miniature contactors
		10/140	SIRIUS 3RS70 signal converters

Monitoring and control devices

Introduction

Overview

Type					
	SIMOCODE M-CP	SIMOCODE pro C	SIMOCODE pro V PROFINET General Performance	SIMOCODE pro S General Performance	SIMOCODE pro V High Performance PROFIBUS/PROFINET Modbus RTU/EtherNet/IP
SIMOCODE 3UF motor management and control devices					
Basic units	✓	✓	✓	✓	✓
Current measuring modules	--	✓	✓	✓	✓
Current/voltage measuring modules	✓	--	--	--	✓
Operator panels	--	✓	✓	✓	✓
Operator panels with display	✓	--	--	--	✓
Expansion modules	✓	--	✓	✓	✓
Fail-safe expansion modules	--	--	--	--	✓
Current transformers	✓	✓	✓	✓	✓
3UL23 residual-current transformers	✓	✓	✓	✓	✓
SIMOCODE ES (TIA Portal)	✓ ¹⁾	✓	✓	✓	✓
SIMOCODE pro block library for SIMATIC PCS 7	--	✓	✓	✓	✓
Page	10/5	10/15	10/15	10/15	10/15

¹⁾ Expected to be available with V20 from December 2024.
 ✓ Corresponds to or available
 -- Does not correspond to or not available

Type			
	3RP25	3RP20	7PV15
Timing relays			
Enclosures			
• 17.5 mm industry and household equipment installation	✓	--	✓
• 22.5 mm industry	✓	--	--
• 45 mm industry	--	✓	--
Monofunction	✓	✓	✓
Multifunction	✓	✓	✓
Combination voltage	✓	✓	✓
Wide voltage range	✓	✓	✓
Application			
• Control systems and mechanical engineering	✓	✓	✓
• Infrastructure	--	--	✓
Device versions with protective coating on printed circuit board	✓	--	--
Page	10/34	10/46	10/52

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

										
Type	3UG551, 3UG561, 3UG571, 3UG581	3UG5532, 3UG5533	3RR21, 3RR22, 3UG5522	3UG564, 3UG574, 3UG584	3UG5625, 3UG5825 with 3UL23	3UG5501	3UG565, 3UG585	3UG546	3UG458	Page
Monitoring relays										
Line monitoring	✓	--	--	--	--	--	--	--	--	10/76
Voltage monitoring	--	✓	--	✓	--	--	--	--	--	10/83, 10/90
Current monitoring	--	--	✓	✓	--	--	--	--	--	10/57, 10/65, 10/87, 10/90
Active current monitoring	--	--	3RR22 ✓	✓	--	--	--	--	--	10/57, 10/65, 10/90
Power factor monitoring	--	--	--	✓	--	--	--	--	--	10/90
Power monitoring	--	--	--	✓	--	--	--	--	--	10/90
Residual current monitoring	--	--	--	--	✓	--	--	--	--	10/97
Level monitoring	--	--	--	--	--	✓	--	--	--	10/102
Speed monitoring	--	--	--	--	--	--	✓	--	--	10/106
DC load monitoring	--	--	--	--	--	--	--	✓	--	10/110
Insulation monitoring	--	--	--	--	--	--	--	--	✓	10/116

✓ Available

-- Not available

				
Type	3RS2	3RN2	3RS70	Page
Temperature monitoring relays				
Temperature monitoring	✓	--	--	10/121
Thermistor motor protection				
Thermistor motor protection	--	✓	--	10/131
Signal converters				
Single-range converters	--	--	✓	10/140
Multi-range converters	--	--	✓	10/140
Universal converters	--	--	✓	10/140

✓ Available

-- Not available

Monitoring and control devices

Introduction

Connection methods

The monitoring and control devices are available with screw or spring-loaded terminals (push-in).

SIRIUS 3RP20 timing relays and SIRIUS 3RR2 monitoring relays are available with screw terminals or spring-loaded terminals.



Screw terminals



Spring-loaded terminals, spring-loaded terminals (push-in)

The connection method is indicated in the corresponding tables by the symbols shown on orange backgrounds.

"Increased safety" type of protection EEx e/d according to ATEX Directive 2014/34/EU

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 hazardous areas.

The SIRIUS 3RN2 thermistor motor protection relay protects motors with types of protection EEx e and EEx d in hazardous areas.

ATEX approval for operation in hazardous areas

The SIRIUS SIMOCODE pro 3UF7 motor management system is certified for the protection of motors in hazardous areas 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

The SIRIUS 3RN2011, 3RN2012-...30, 3RN2013 and 3RN2023 thermistor motor protection relays for PTC sensors are certified according to ATEX Ex II (2) G and D for environments with explosive gas or dust loads.

Note:

For SIMOCODE M-CP, the "Increased safety" type of protection EEx e/d according to ATEX Directive 2014/34/EU and ATEX approval for use in hazardous areas is expected to be available from mid 2025.

Ordering notes for multi-unit packaging

SIMOCODE pro S, SIRIUS 3RP25 timing relays, SIRIUS 3UG5 monitoring relays, SIRIUS 3RS2 temperature monitoring relays and SIRIUS 3RN2 thermistor motor protection can also be ordered in practical and environmentally friendly multi-unit packaging on request.

Multi-unit packaging with order code X90

When ordering products in multi-unit packaging, the article number of the product concerned must be supplemented with **"-Z"** and, in addition, the order code **"X90"** must be specified.

Ordering examples:

- 3RP2505-1AB30-Z X90;
Order quantity 16 items → Packed number of items 16
- 3RP2505-1BB30-Z X90;
Order quantity 12 items → Packed number of items 12

For more information, [see page 16/7](#).

Overview

SIMOCODE M-CP

More informationHomepage, see www.siemens.com/sirius-simocodeSiePortal, see www.siemens.com/product?3UF8

SIMOCODE M-CP is a flexible, compact 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 preventive maintenance of a system.

SIMOCODE M-CP offers, for example:

- Multifunctional, electronic full motor protection that is independent of the automation system
- Integrated voltage and power measurement instead of hardware for the motor control
- Detailed operating, service and diagnostics data
- Open, Ethernet-based communication via PROFINET IO. The devices are set by default to PROFINET IO communication as the fieldbus protocol and can be switched over to EtherNet/IP¹⁾ or Modbus TCP¹⁾ using the SIMOCODE ES software.
- Safety-related shutdown of motors according to SIL 1/PLc via a fail-safe input¹⁾

SIMOCODE ES (TIA Portal) is the software package for SIMOCODE M parameterization, startup and diagnostics. The necessary SIMOCODE ES version V20 is expected to be available from December 2024, see [SiePortal](#).

¹⁾ Expected to be available by mid 2025.

Device seriesCompact performance with SIMOCODE M-CP

The compact and powerful system specially for use in switchgear of withdrawable design (motor control centers or MCC for short). With its compact design and the new flexible Single Pair Ethernet (SPE) connection technology for Ethernet communication, the device series provides the optimum solution for space-saving and time-saving installation.

Per feeder each system always comprises one basic unit and one separate current/voltage measuring module. The two modules are electrically connected with each other through the system interface by a connecting cable. The motor current to be monitored is decisive only for the choice of the current/voltage measuring module. Measurement of the voltage is possible up to 690 V.

Optionally, an operator panel with display can be mounted directly on the basic unit or separately from it. For the latter type of installation, a connecting cable is required, see [page 10/13](#).

The basic unit has five standard inputs (110 to 240 V AC/DC or 24 V DC, depending on the voltage version of the basic unit) and four relay outputs and a further 24-V-DC input that can be used either as a standard input or with an optional license¹⁾ as a fail-safe digital input (SIL 1/PL c) for safety-related shutdown of the motor.

The basic unit is also provided with an input for thermistor motor protection, which can alternatively be used as an input for connecting a floating contact.

For measuring ground fault currents, a 3UL23 external transformer can be connected, see [page 10/101](#).

Moreover, a 1-wire interface is available to which up to 12 temperature sensors can be connected.

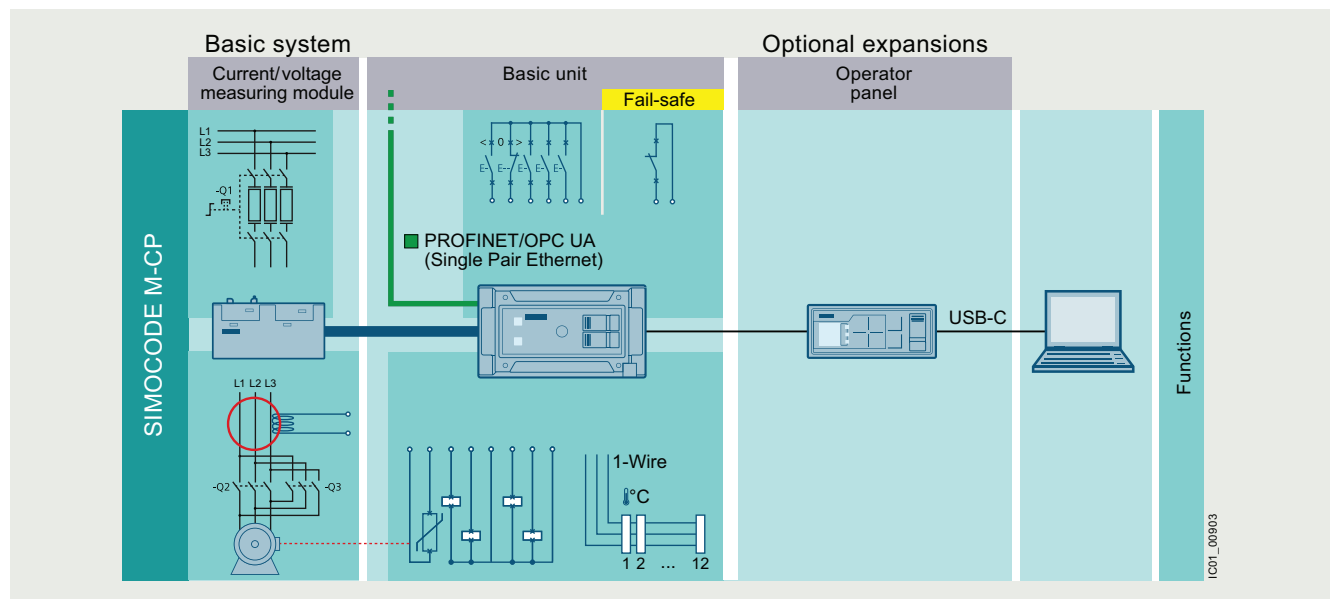
For connecting a Single Pair Ethernet (SPE), each basic unit has a 3-pole push-in terminal.

Monitoring and control devices

SIMOCODE 3UF motor management and control devices

SIMOCODE M 3UF8 motor management and control devices

General data **NEW**



System structure

Article number schemes

SIMOCODE M-CP motor management system

Product versions		Article number	
Basic units		3UF8 0 1 ☐ - 2 A ☐ 0 0 - 0	
Interface hardware	e.g. 1 = PROFINET, EtherNet/IP ¹⁾ , Modbus TCP ¹⁾	☐	☐
Voltage version	e.g. B = 24 V DC	☐	☐
Example		3UF8 0 1 1 - 2 A B 0 0 - 0	

Product versions		Article number	
License for device functions¹⁾		3UF8 8 ☐ ☐ - 0 A A 0 0 - 0	
Device function	e.g. 10 = condition monitoring with instantaneous value recording	☐	☐
Example		3UF8 8 1 0 - 0 A A 0 0 - 0	

Product versions		Article number	
Current/voltage measuring modules		3UF8 1 1 ☐ - ☐ A ☐ 0 0 - 0	
Current range	e.g. 0 = 0.3 to 40 A	☐	☐
Connection methods	1 = screw terminals	☐	☐
Type of construction	e.g. A = straight-through transformer	☐	☐
Example		3UF8 1 1 0 - 1 A A 0 0 - 0	

¹⁾ Expected to be available by mid 2025.

Note:

The article number schemes show 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.

Benefits**General customer benefits**

- The SIMOCODE M-CP system provides motor management optimized for use in switchboards and withdrawable switching devices.
- Integrating the entire motor feeder into the process control via PROFINET IO, Modbus TCP¹⁾, EtherNet/IP¹⁾ or OPC UA reduces cabling between the motor feeder and the PLC.
- Using Single Pair Ethernet (SPE) also substantially simplifies the wiring of the communications interface inside the motor control center (MCC).
- 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 preventive maintenance and service-friendliness.
- 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.
- The precision of the current, voltage, power and energy measurements for each individual motor feeder enables detailed assignment to the plant components.

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

SIMOCODE M-CP offers comprehensive protection of the motor feeder by combining various multi-step and delayable protection and monitoring functions:

- Inverse-time delayed electronic overload protection (CLASS 5E to 40E)
- Thermistor motor protection
- Phase failure/asymmetry protection/negative-sequence system protection¹⁾
- Blocking protection on motor starting and during running operation
- Monitoring of adjustable limit values for the motor current
- Voltage and power monitoring
- Power factor monitoring (motor idling/load shedding)
- Ground fault monitoring, also with additional residual-current transformer, [see page 10/101](#).
- Temperature measurement of up to 12 measuring points via 1-wire temperature sensors
- Monitoring of operating hours, downtime, starting time, number of starts, etc.

¹⁾ Expected to be available by mid 2025.

Recording measured values (rms values)¹⁾

SIMOCODE M-CP is capable of recording the rms values of, for example, current and voltage and can thus visualize the progression of motor current during motor startup.

Recording instantaneous values for current and voltage¹⁾

In addition to recording rms values, SIMOCODE M-CP can also record the instantaneous values for current and voltage. This device function can be activated using an optional license key and is then available without further effort.

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

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

- Overload relays
- Direct-on-line and reversing starters
- Star-delta (wye-delta) starters (also with direction reversal)
- Two speeds, motors with separate windings (pole-changing starter)
- Two speeds, motors with separate Dahlander windings
- Slide valve control
- Valve actuation
- Actuation of a motor starter protector
- Soft starter actuation (also with direction reversal)

These control functions are predefined in SIMOCODE M-CP and can be freely assigned to the inputs and outputs of the device (including the data exchanged via the fieldbus interface).

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 M-CP eliminates the need for a lot of additional hardware and wiring in the control circuit, which results in a high level of standardization of the motor feeder in terms of its design and circuit diagrams.

Monitoring and control devices

SIMOCODE 3UF motor management and control devices

SIMOCODE M 3UF8 motor management and control devices

General data **NEW**

Detailed operating, service and diagnostics data

SIMOCODE M-CP makes different operating, service and diagnostics data available and helps to detect potential faults at an early stage and to avert them by means of preventive 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 asymmetry and phase sequence
- Ground fault current
- Frequency
- Time to trip
- Motor temperature (thermistor)
- Remaining cooling time etc.

Service data

- Motor operating hours
- Motor stop times
- Number of motor starts
- Number of overload trips
- Motor load diagram¹⁾
- Energy consumed
- Error statistics¹⁾

Diagnostics data

- Numerous detailed early warning and fault messages
- Internal device fault logging with time stamp

Easy operation and diagnostics

Operator panels with display

For SIMOCODE M-CP, an operator panel with a multi-colored illuminated LC graphic display is available. The color of the lighting indicates faults (red) or warnings (yellow). The display is also used for individual labeling of the freely configurable buttons and LEDs, e.g. for controlling the motor and for status display.

Moreover, diagnostics information, measured values, and statistical data can be displayed, along with a unique QR code that can be used to access the function "Web server-based operator control and monitoring via mobile devices"¹⁾.

A USB-C interface on the front is used to for parameter assignment, commissioning, and diagnostics via a PC/PG.

¹⁾ Expected to be available by mid 2025.

Communication via Single Pair Ethernet (SPE)

SIMOCODE M-CP has a Single Pair Ethernet (SPE) communications interface based on 10Base-T1L (IEEE 802.3cg).

Single Pair Ethernet substantially simplifies the wiring of the communications interface in motor control centers (MCC). Whereas conventional Industrial Ethernet requires 100Base-TX cables with two twisted-pair cores and RJ45 plug, SPE 10Base-T1L manages with only one pair of wires and no special bus connector and is therefore ideal for bus wiring in MCCs in withdrawable and plug-in design.

Thanks to the robust physical characteristics of the SPE bus, shared use of existing plug-in connections for control signals and bus communication is possible. The bus cable is connected to SIMOCODE M-CP via a removable, 3-pole terminal.

Integration of devices with SPE in Industrial Ethernet with 100Base-TX is achieved using SPE switches.

SIMOCODE M-CP supports leading Ethernet-based fieldbus communications via PROFINET, EtherNet/IP¹⁾ or Modbus TCP¹⁾ and also OPC UA and web server. The devices can be delivered preset to PROFINET communication and can be switched over to the alternative EtherNet/IP¹⁾ or Modbus TCP¹⁾ by parameter assignment, meaning that only one device version is required.

SIMOCODE M-CP PROFINET

SIMOCODE M-CP PROFINET supports, among other things:

- Cyclic data exchange with configurable I/O structure
- Acyclic communication via data records
- Operating, service and diagnostics data via standard web browser
- OPC UA server for open communication with visualization and I&C systems and for online functions with the SIMOCODE ES software
- NTP-synchronized time
- Measured values for energy management using PROFIenergy¹⁾
- Extensive diagnostics and maintenance alarms

System redundancy with SIMOCODE M-CP PROFINET

All SIMOCODE M-CP PROFINET devices support the system redundancy mechanisms of PROFINET IO and therefore can be operated directly on fault-tolerant systems such as SIMATIC S7-400H or SIMATIC S7-1500R/H. As such, SIMOCODE M-CP can provide decisive added value also for the field level of plants in which plant availability and control system redundancy are priorities.

SIMOCODE M-CP Modbus TCP¹⁾

SIMOCODE M-CP Modbus TCP supports, among other things:

- Access to freely configurable process image via Modbus TCP
- Access to all operating, service, and diagnostics data via Modbus TCP
- Operating, service and diagnostics data via standard web browser
- OPC UA server for open communication with visualization and I&C systems and for online functions with the SIMOCODE ES software
- NTP-synchronized time

SIMOCODE M-CP EtherNet/IP¹⁾

SIMOCODE M-CP EtherNet/IP supports, among other things:

- Operating, service and diagnostics data via standard web browser
- NTP-synchronized time
- OPC UA server for open communication with visualization and I&C systems and for online functions with the SIMOCODE ES software

¹⁾ Expected to be available by mid 2025.

Notes on security

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

For more information on industrial cybersecurity, see www.siemens.com/cybersecurity-industry.

Autonomous operation

An essential feature of SIMOCODE M-CP 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 from integrated energy management

siemens.com/energysuite

Ready for
SIMATIC
Energy Suite

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 M-CP, configuration effort is also clearly reduced.

Thanks to 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 page 1/3 or www.siemens.com/energysuite.

Application

SIMOCODE M-CP 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 operating, service and diagnostics data or to localize faults very quickly when they occur.

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

- Protection and control of motors in hazardous areas for types of protection EEx e/d according to ATEX Directive 2014/34/EU¹⁾
 - With heavy starting (paper, cement, metal and water industries)
 - In high-availability plants (chemical, oil, raw material processing industries, power plants)
- Dry-running protection of centrifugal pumps based on active power monitoring for type of protection Ex b¹⁾

¹⁾ Expected to be available by mid 2025.

Dry-running protection of centrifugal pumps with SIMOCODE M-CP in hazardous areas¹⁾

SIMOCODE M-CP offers a subsequently loadable function for dry-running protection of centrifugal pumps through active power monitoring and motor switch-off. This applies to centrifugal pumps with progressive flow characteristics, which are also suitable for pumping flammable media and are also installed in hazardous areas. If the active power, and thus the flow rate, falls below a minimum value, the motor – and thus the centrifugal pump – is switched off. When determining the limit values to be monitored, the user is supported by a menu-guided teach-in process in the engineering software.

Monitoring and control devices

SIMOCODE 3UF motor management and control devices

SIMOCODE M 3UF8 motor management and control devices

General data **NEW**

Technical specifications

More information

Technical specifications, [see](https://support.industry.siemens.com/cs/ww/en/ps/29619/td)
<https://support.industry.siemens.com/cs/ww/en/ps/29619/td>
 Equipment Manual SIMOCODE M-CP, [see](https://support.industry.siemens.com/cs/ww/en/view/109973290)
<https://support.industry.siemens.com/cs/ww/en/view/109973290>

Digital Configuration Manual for load feeders, [see](https://imp.siemens.com/digital-engineering-manual/dem)
<https://imp.siemens.com/digital-engineering-manual/dem>
 Configuration Manual for load feeders, [see](https://support.industry.siemens.com/cs/ww/en/view/39714188)
<https://support.industry.siemens.com/cs/ww/en/view/39714188>

More information

Protective separation

All circuits in SIMOCODE M-CP are safely isolated from each other according to IEC 60947-1. This means that they are designed with double clearances and creepage distances. In the event of a fault, therefore, no parasitic voltages can be formed in neighboring circuits.

Types of protection EEx e and EEx d¹⁾

The overload protection and the thermistor motor protection of the SIMOCODE M-CP system comply with the requirements for overload protection of explosion-proof motors of 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 M-CP 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.

¹⁾ Expected to be available by mid 2025.

Type of protection Ex b¹⁾

The function for dry-running protection of centrifugal pumps in hazardous areas complies with the requirements of the following type of protection:

- Ex b "Control of ignition source", ignition protection system b1, e.g. according to EN 80079-37

SIMOCODE M-CP is registered for the dry-running protection of centrifugal pumps by means of active power monitoring according to both ATEX and IEC Ex.

NEW**IE3/IE4 ready****Basic units****Selection and ordering data**

Version	Spring-loaded terminals (push-in)	PU (UNIT, SET, M)	PS*	PG
Article No.	Price per PU			

SIMOCODE M-CP

3UF8011-2AB00-0



3UF8011-2AU00-0

SIMOCODE M-CP

Single Pair Ethernet 10BASE-T1L IEEE 802.3cg
PROFINET IO, EtherNet/IP¹⁾, Modbus TCP¹⁾,
1 x bus connection via 3-pole terminal,
6 I/4 Q freely configurable,
input for thermistor connection,
input for 3UL23 residual-current transformer
for measuring ground faults

Rated control supply voltage U_s :

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

3UF8011-2AB00-0

1

1 unit

42J

3UF8011-2AU00-0

1

1 unit

42J

¹⁾ Expected to be available by mid 2025.

Note:

For corresponding residual-current transformers,
see page 10/101.

Version	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
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SIMOCODE M-CP license keys¹⁾**License keys for enabling function**

- Condition monitoring instantaneous value recording for current and voltage
- Dry-running protection of centrifugal pumps in hazardous area according to SIL 1
- Web server-based operator control and monitoring via mobile devices
- 1-wire sensor input for temperature sensor and memory module
- 1-channel input for safety-related shutdown according to SIL 1

3UF8810-0AA00-0

1

1 unit

42J

3UF8820-0AA00-0

1

1 unit

42J

3UF8830-0AA00-0

1

1 unit

42J

3UF8840-0AA00-0

1

1 unit

42J

3UF8841-0AA00-0

1

1 unit

42J

¹⁾ Expected to be available by mid 2025.

Monitoring and control devices

SIMOCODE 3UF motor management and control devices

SIMOCODE M 3UF8 motor management and control devices

Basic units **NEW**

Version	Current setting	Screw terminals	PU (UNIT, SET, M)	PS*	PG
	A	Article No.	Price per PU		

SIMOCODE M-CP current/voltage measuring modules

Current/voltage measuring modules

Voltage measuring up to 690 V, measured values with increased accuracy, power, power factor and frequency monitoring

- Straight-through transformers



3UF8110-1AA00-0



3UF8111-1AA00-0



3UF8112-1AA00-0

¹⁾ Version 3UF8112-1AA00-0 can optionally also be used for busbar connection to contactors. For this purpose, mounting kit 3UF8950-0AA00-0 and, depending on the contactor size, terminal parts kit 3UF8951-0AA00-0 (size S6) or 3RT1966-4PA00 (sizes S10/S12) are additionally required, see page 10/14.

3UF8110-1AA00-0

1

1 unit

42J

3UF8111-1AA00-0

1

1 unit

42J

3UF8112-1AA00-0

1

1 unit

42J

Version	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
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SIMOCODE M-CP operator panels with display

Operator panel

Installation on the front of the device or front panel mounting, graphical display with colored backlight, three LEDs for status display, four freely assignable buttons, USB-C interface



3UF8200-1AA00-0

3UF8200-1AA00-0

1

1 unit

42J

Note:

If the operator panel is used separately from the basic unit, a mounting adapter 3UF8922-0.A00-0 and a connecting cable 3UF893.-0BA00-0 are required.

Selection and ordering data

Version		Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Accessories for motor control centers						
 3UF8902-0AA00-0	With the withdrawable design frequently used in motor control centers, it is possible to integrate a SIMOCODE initialization module in the switchboard on a permanent basis. Feeder-related parameter and address data can then be permanently assigned to this feeder.					
	Initialization module ¹⁾ For automatic parameter assignment of SIMOCODE M-CP basic units		3UF8902-0AA00-0	1	1 unit	42J
	Y connecting cables For use in conjunction with the initialization module; connects the basic unit, current/voltage measuring module and initialization module					
System interface length		Open cable end				
0.5 m		1.0 m	3UF7932-0CA00-0	1	1 unit	42J
1.0 m		1.0 m	3UF7937-0CA00-0	1	1 unit	42J
Connecting cables (essential accessories)						
 3UF7932-0AA00-0	In different lengths for connecting basic unit and current/voltage measuring module					
	Version	Length				
	Flat	0.3 m	3UF7935-0AA00-0	1	1 unit	42J
		0.5 m	3UF7932-0AA00-0	1	1 unit	42J
	Round	0.5 m	3UF7932-0BA00-0	1	1 unit	42J
		1.0 m	3UF7937-0BA00-0	1	1 unit	42J
2.5 m		3UF7933-0BA00-0	1	1 unit	42J	
Connecting cables, optional						
 3UF8932-0BA00-0	Connecting cables for operator panel For connecting the operator panel to the basic unit when mounted separately					
	• Length 0.5 m		3UF8932-0BA00-0	1	1 unit	42J
	• Length 1 m		3UF8937-0BA00-0	1	1 unit	42J
PC cables						
 8WD4618-0FB	USB PC cable USB-C plug to USB-A plug, for connecting a PC to SIMOCODE M-CP, length 2 m, black		8WD4618-0FB	1	1 unit	42J
Mounting adapters						
 3UF8922-0AA00-0	Mounting adapters					
	• For operator panel when mounted separately					
	- Width 95 mm, height 58 mm		3UF8922-0AA00-0	1	1 unit	42J
	- Width 105 mm, height 42 mm		3UF8922-0BA00-0	1	1 unit	42J
 3UF8922-0BA00-0	• For mounting on the base unit for attachment to DIN rail		3UF8910-0AA00-0	1	1 unit	42J
DIN-rail adapters						
 3UF8920-0AA00-0	DIN-rail adapters		3UF8920-0AA00-0	1	2 units	42J
	• For basic unit 3UF8011-2A.00-0: Two DIN-rail adapters are required.					
	• For current/voltage measuring modules 3UF811.-1AA00-0: One DIN-rail adapter is required for each.					

¹⁾ Expected to be available by mid 2025.

Monitoring and control devices

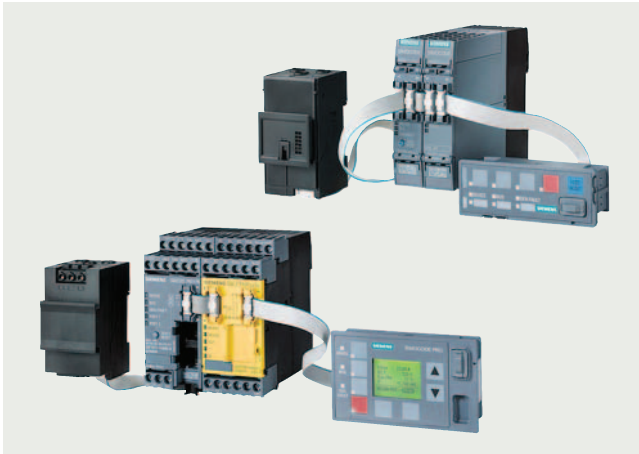
SIMOCODE 3UF motor management and control devices

SIMOCODE M 3UF8 motor management and control devices

Accessories **NEW**

Version		Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Seals						
 3UF8923-0AA00-0	Seals For base unit and operator panel when mounted in front panel to achieve degree of protection IP54	3UF8923-0AA00-0		1	10 units	42J
Mounting and connection kits						
 3UF8950-0AA00-0	Mounting kit For bar connection of the current/voltage measuring module 3UF8112-1AA00-0 to SIRIUS contactors, sizes S6 to S12 <u>Note:</u> A terminal parts kit for a contactor, depending on the contactor size, is additionally required.	3UF8950-0AA00-0		1	1 unit	42J
 3RT1966-4PA00	Terminal parts kits for one complete contactor Each set includes six screws, spring washers and nuts. • Size S6, M 10 x 30/M 8 x 25 • Sizes S10, S12, M 10 x 30	3UF8951-0AA00-0 3RT1966-4PA00		1	1 unit	42J
				1	1 unit	41B
Software						
 3ZS1322...	SIMOCODE ES (TIA Portal) Software for configuring, commissioning, operating and diagnosing SIMOCODE M-CP based on the TIA Portal. The necessary SIMOCODE ES version V20 is expected to be available from December 2024, see SiePortal .					

Overview



SIMOCODE pro S and SIMOCODE pro V

More information

Homepage, see www.siemens.com/sirius-simocodeSiePortal, see www.siemens.com/product?3UF7

TIA Selection Tool Cloud (TST Cloud)

• For SIMOCODE pro S, see

www.siemens.com/tstcloud/?node=SimocodeProS

• For SIMOCODE pro V, see

www.siemens.com/tstcloud/?node=SimocodeProV

• Topic page, see

<https://support.industry.siemens.com/cs/ww/en/view/109803120>

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 preventive maintenance of a system.

SIMOCODE pro offers, for example:

- Multifunctional, electronic 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 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 according to IEC 61508, IEC 62061 or PL e according to ISO 13849-1
- Device versions with protective coating on printed circuit board
- SIMOCODE ES is the software package for SIMOCODE pro parameterization, startup and diagnostics, see [page 14/13](#).

Device series

Basic Performance with SIMOCODE pro C

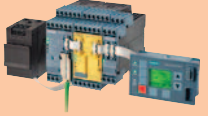
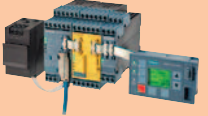
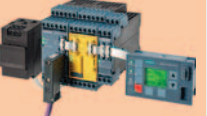
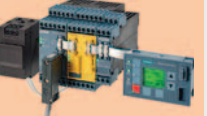
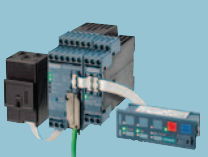
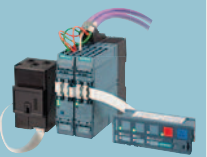
The compact system for direct-on-line and reversing starters or for controlling a motor starter protector.

General Performance with SIMOCODE pro S or SIMOCODE pro V PN GP

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

High Performance with 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.

	PROFINET IO/OPC UA	ETHERNET/IP	PROFIBUS	MODBUS RTU	
Current/voltage measuring module	 SIMOCODE pro V PN	 SIMOCODE pro V EIP	 SIMOCODE pro V PB	 SIMOCODE pro V MR	High Performance
Operator panel with display					
Max. 5/7 expansion modules					
Safety					
Extended control functions (e.g. slide valve, pole-changing starter)					
Current measuring module	 SIMOCODE pro V PN GP		 SIMOCODE pro S		General Performance
Operator panel					
1 expansion module					
Basic control functions (e.g. direct-on-line/reversing start)					

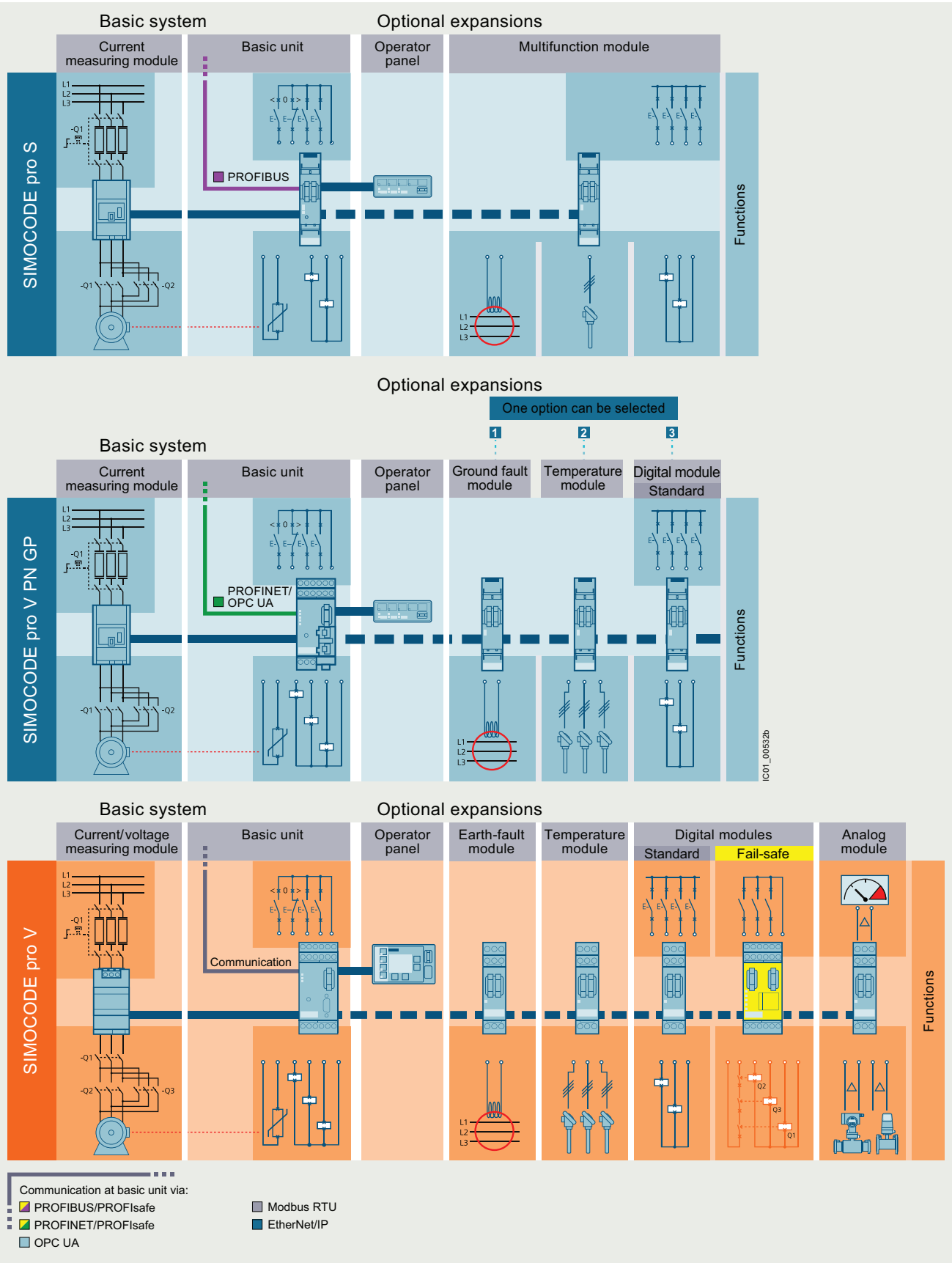
Device series

Monitoring and control devices

SIMOCODE 3UF motor management and control devices

SIMOCODE pro 3UF7 motor management and control devices

General data



System structure

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

✓ Available

-- Not available

¹⁾ The fail-safe digital module can be used instead of one of the two digital modules.²⁾ Only monostable version can be used.³⁾ A monostable digital module, a ground fault module or a temperature module with a temperature sensor can be used instead of the multifunction module.

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 connecting 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 connecting 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 connecting cables. The connecting 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 connecting cables per system interface of the basic unit may be up to 3 m.

Article number scheme

Product versions		Article number									
SIMOCODE pro motor management system		3UF7	☐	☐	☐	☐	☐	☐	☐	☐	☐
Type of unit/module	e.g. 0 = basic unit		☐								
Functional version of the module	e.g. 20 = SIMOCODE pro S		☐	☐							
Connection type of the current transformer	e.g. A = through-hole technology			☐							
Voltage version	e.g. B = 24 V DC				☐						
Enclosure color	e.g. 1 = titanium gray					☐					
Versions	With protective coating on printed circuit board									0 A X 0	
Example		3UF7	0	2	0	-	1	A	B	0	1 - 0 A X 0

Note:

The article number 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.

Monitoring and control devices

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 preventive 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.
- Device versions with protective coating on printed circuit board

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 electronic overload protection (CLASS 5E to 40E)
- Thermistor motor protection
- Phase failure/asymmetry protection
- Stall protection
- Monitoring of adjustable limit values for the motor current
- Voltage and power monitoring
- Power factor monitoring (motor idling/load shedding)
- Ground fault monitoring
- Temperature monitoring, e.g. via Pt100/Pt1000
- Monitoring of operating hours, downtime and number of starts, etc.

Recording of measurement curves

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

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
- Star-delta (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)
- Slide valve control
- 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.

Detailed operating, service and diagnostics data

SIMOCODE pro makes different operating, service and diagnostics data available and helps to detect potential faults at an early stage and to avert them by means of preventive 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 asymmetry 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 diagnosticsOperator 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, e.g. for simple parameterization or diagnostics 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, operating 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 E03 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 PROFI-safe profile is also possible in conjunction with a fail-safe controller (F-CPU) and the DM-F PROFI-safe 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 (for 2-port devices with an integrated switch)
- Media redundancy via MRP protocol (for 2-port devices with an integrated switch)
- Operating, service and diagnostics data via standard web browser
- OPC UA server for open communication with visualization and I&C systems
- NTP-synchronized time
- Interval function and measured values for energy management via PROFInergy
- Module exchange without PC/memory module through proximity detection
- Extensive diagnostics and maintenance alarms

System redundancy with SIMOCODE pro PROFINET

All SIMOCODE PROFINET devices support the system redundancy mechanisms of PROFINET IO and therefore can be operated directly on fault-tolerant systems such as SIMATIC S7-400H or SIMATIC S7-1500R/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 configurable 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 or higher – via local device interface and Ethernet

Monitoring and control devices

SIMOCODE 3UF motor management and control devices

SIMOCODE pro 3UF7 motor management and control devices

General data

Notes on security

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

For more information on industrial cybersecurity, see www.siemens.com/cybersecurity-industry.

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 from integrated energy management

siemens.com/energysuite

Ready for
SIMATIC
Energy Suite

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 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 [page 1/3](#) or www.siemens.com/energysuite.

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 operating, service and diagnostics data or to localize 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.

- Protection and control of motors in hazardous areas for types of protection EEx e/d according to ATEX Directive 2014/34/EU
 - With heavy starting (paper, cement, metal and water industries)
 - In high-availability plants (chemical, oil, raw material processing industries, power plants)
- Dry-running protection of centrifugal pumps based on active power monitoring for type of protection Ex b

Suitable for use in harsh ambient conditions

Versions with protective coating on the printed circuit board according to IPC-A-610 are available for use in environments that are exposed to dust, condensation, rapid temperature changes and corrosion. These are intended for applications in rail systems, agriculture, mining, woodworking, etc.

Note:

Other device versions with protective coating on the printed circuit board are available on request.

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 into 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

Dry-running protection of centrifugal pumps with SIMOCODE pro in hazardous areas

Video: Dry-running protection redefined with SIMOCODE pro

With special versions of the current/voltage measuring modules, SIMOCODE pro enables dry-running protection of centrifugal pumps through active power monitoring and motor switch-off. This applies to centrifugal pumps with progressive flow characteristics, which are also suitable for pumping flammable media and are also installed in hazardous areas. If the active power, and thus the flow rate, falls below a minimum value, the motor – and thus the centrifugal pump – is switched off. When determining the limit values to be monitored, the user is supported by a menu-guided teach-in process in the engineering software.

Technical specifications**More information**

Technical specifications, see
<https://support.industry.siemens.com/cs/ww/en/ps/16337/td>
 SIMOCODE pro - Manual Collection, see
<https://support.industry.siemens.com/cs/ww/en/view/109743951>
 System Manual for SIMOCODE pro Safety fail-safe digital modules, see
<https://support.industry.siemens.com/cs/ww/en/view/50564852>

Digital Configuration Manual for load feeders, see
<https://imp.siemens.com/digital-engineering-manual/dem>
 Configuration Manual for load feeders, see
<https://support.industry.siemens.com/cs/ww/en/view/39714188>

More information**Configuration instructions**

When using an operator panel with display, please note that the type and number of expansion modules that can be connected are limited for the use of a SIMOCODE pro V PROFIBUS basic unit (with product version lower than E15) or SIMOCODE pro V Modbus RTU (with product version lower than E03), see

- [TIA Selection Tool](#)
- [SIMOCODE pro Manual Collection](#)

Protective separation

All circuits in SIMOCODE pro are safely isolated from each other according to IEC 60947-1. This means that they are designed with double clearances and creepage distances. In the event of a fault, therefore, no parasitic voltages can be formed in neighboring circuits. The notes of the test report No. A0258 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 of 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 EC.

Type of protection Ex b

The function for dry-running protection of centrifugal pumps in hazardous areas complies with the requirements of the following type of protection:

- Ex b "Control of ignition source", ignition protection system b1, e.g. according to EN 80079-37

SIMOCODE pro is registered for the dry-running protection of centrifugal pumps by means of active power monitoring according to both ATEX and IEC Ex.

Monitoring and control devices

SIMOCODE 3UF motor management and control devices

SIMOCODE pro 3UF7 motor management and control devices

Basic units **IE3/IE4 ready**

Selection and ordering data

Multi-unit packaging
for SIMOCODE pro S,
see page 16/7.

Multi-unit packaging for SIMOCODE pro S, see page 16/7.		Version	Screw terminals		PU (UNIT, SET, M)	PS*	PG
			Article No.	Price per PU			
SIMOCODE pro PROFIBUS							
	SIMOCODE pro C PROFIBUS DP interface, 12 Mbps, RS 485 4 I/3 O freely configurable, input for thermistor connection, monostable relay outputs Rated control supply voltage U_s : • 24 V DC • 110 ... 240 V AC/DC • 110 ... 240 V AC/DC, with protective coating on printed circuit board	3UF7000-1AB00-0 3UF7000-1AU00-0 3UF7000-1AU00-0AX0		1	1 unit	42J	
				1	1 unit	42J	
				1	1 unit	42J	
	SIMOCODE pro S PROFIBUS DP interface, 1.5 Mbps, RS 485 4 I/2 O freely configurable, input for thermistor connection, monostable relay outputs, can be expanded by a multifunction module <u>Note:</u> The connecting cable to the current measuring module must be at least 15 cm. Rated control supply voltage U_s : • 24 V DC • 110 ... 240 V AC/DC • 110 ... 240 V AC/DC, with protective coating on printed circuit board	3UF7020-1AB01-0 3UF7020-1AU01-0 3UF7020-1AU01-0AX0		1	1 unit	42J	
				1	1 unit	42J	
				1	1 unit	42J	
	SIMOCODE pro V PROFIBUS DP interface, 12 Mbps, RS 485 4 I/3 O freely configurable, 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 • 110 ... 240 V AC/DC, with protective coating on printed circuit board	3UF7010-1AB00-0 3UF7010-1AU00-0 3UF7010-1AU00-0AX0		1	1 unit	42J	
				1	1 unit	42J	
				1	1 unit	42J	
SIMOCODE pro PROFINET							
	SIMOCODE pro V PROFINET GP Ethernet/PROFINET IO, OPC UA server and web server, 100 Mbps, PROFINET system redundancy, 4 I/3 O freely configurable, input for thermistor connection, monostable relay outputs, can be expanded by expansion module, web server in German/English/Chinese/Russian <u>2 x bus connection via RJ45</u> Media Redundancy Protocol Rated control supply voltage U_s : • 24 V DC • 110 ... 240 V AC/DC <u>1 x bus connection via RJ45</u> Rated control supply voltage U_s : • 24 V DC • 110 ... 240 V AC/DC	3UF7011-1AB00-1 3UF7011-1AU00-1		1	1 unit	42J	
				1	1 unit	42J	
	SIMOCODE pro V PROFINET Ethernet/PROFINET IO, OPC UA server and web server, 100 Mbps, 2 x bus connection via RJ45, PROFINET system redundancy, media redundancy protocol, 4 I/3 O freely configurable, 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	3UF7011-1AB00-2 3UF7011-1AU00-2		1	1 unit	42J	
				1	1 unit	42J	
	SIMOCODE pro V PROFINET Ethernet/PROFINET IO, OPC UA server and web server, 100 Mbps, 2 x bus connection via RJ45, PROFINET system redundancy, media redundancy protocol, 4 I/3 O freely configurable, 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 unit	42J	
				1	1 unit	42J	

Monitoring and control devices

SIMOCODE 3UF motor management and control devices

SIMOCODE pro 3UF7 motor management and control devices

IE3/IE4 ready

Basic units

Version	Current setting	Width	Screw terminals	PU (UNIT, SET, M)	PS*	PG
	A	mm	Article No.	Price per PU		

SIMOCODE pro Modbus RTU



SIMOCODE pro V Modbus RTU

Modbus RTU interface, 57.6 Kbps, RS 485,
4 I/O freely configurable,
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

3UF7012-1AB00-0

1

1 unit

42J

3UF7012-1AU00-0

1

1 unit

42J

3UF7012-1A.00-0

SIMOCODE pro EtherNet/IP



SIMOCODE pro V EtherNet/IP

EtherNet/IP interface, web server, 100 Mbps,
2 x bus connection via RJ45,
DLR media redundancy,
4 I/O freely configurable,
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

3UF7013-1AB00-0

1

1 unit

42J

3UF7013-1AU00-0

1

1 unit

42J

3UF7013-1AB00-0

SIMOCODE pro current or current/voltage measuring modules



Current measuring modules

- | | | |
|-----------------------------------|------------|-----|
| • Straight-through transformers | 0.3 ... 3 | 45 |
| | 2.4 ... 25 | 45 |
| | 10 ... 100 | 55 |
| | 20 ... 200 | 120 |
| • Busbar connection ¹⁾ | 20 ... 200 | 120 |
| | 63 ... 630 | 145 |

3UF7100-1AA00-0

1

1 unit

42J

3UF7101-1AA00-0

1

1 unit

42J

3UF7102-1AA00-0

1

1 unit

42J

3UF7103-1AA00-0

1

1 unit

42J

3UF7103-1BA00-0

1

1 unit

42J

3UF7104-1BA00-0

1

1 unit

42J

3UF7103-1AA00-0

2nd-generation current/voltage measuring modules for SIMOCODE pro V²⁾

Voltage measuring up to 690 V,
measured values with increased accuracy,
power, power factor and frequency monitoring

- | | | |
|-----------------------------------|------------|-----|
| • Straight-through transformers | 0.3 ... 4 | 45 |
| | 3 ... 40 | 45 |
| | 10 ... 115 | 55 |
| | 20 ... 200 | 120 |
| • Busbar connection ¹⁾ | 20 ... 200 | 120 |
| | 63 ... 630 | 145 |

3UF7110-1AA01-0

1

1 unit

42J

3UF7111-1AA01-0

1

1 unit

42J

3UF7112-1AA01-0

1

1 unit

42J

3UF7113-1AA01-0

1

1 unit

42J

3UF7113-1BA01-0

1

1 unit

42J

3UF7114-1BA01-0

1

1 unit

42J

3UF7110-1AA01-0

Current/voltage measuring modules for dry-running protection of centrifugal pumps in hazardous areas²⁾³⁾⁴⁾

- | | | |
|-----------------------------------|------------|-----|
| • Straight-through transformers | 0.3 ... 4 | 45 |
| | 3 ... 40 | 45 |
| | 10 ... 115 | 55 |
| | 20 ... 200 | 120 |
| • Busbar connection ¹⁾ | 20 ... 200 | 120 |
| | 63 ... 630 | 145 |

3UF7120-1AA01-0

1

1 unit

42J

3UF7121-1AA01-0

1

1 unit

42J

3UF7122-1AA01-0

1

1 unit

42J

3UF7123-1AA01-0

1

1 unit

42J

3UF7123-1BA01-0

1

1 unit

42J

3UF7124-1BA01-0

1

1 unit

42J

3UF7123-1AA01-0

¹⁾ One terminal parts kit 3RT1955-4PA00 or 3RT1966-4PA00 (see page 10/30) is included in the scope of supply for connection to a contactor.

²⁾ When installing the basic unit on a current/voltage measuring module, the connecting cable must be at least 15 cm long.

³⁾ The current/voltage measuring modules for dry-running protection require SIMOCODE pro V PROFIBUS basic units as of product version E16, SIMOCODE pro V PROFINET as of product version E13 or SIMOCODE pro V EtherNet/IP as of product version E04.

⁴⁾ When using an operator panel with display with the current/voltage measuring modules for dry-running protection, an operator panel with display as of product version E03 is required.

Note:

Other device versions with protective coating on the printed circuit board are available on request.

Monitoring and control devices

SIMOCODE 3UF motor management and control devices

SIMOCODE pro 3UF7 motor management and control devices

Basic units **IE3/IE4 ready**

Version		Screw terminals	PU (UNIT, SET, M)	PS*	PG
		Article No.	Price per PU		
SIMOCODE pro operator panels					
 3UF7200-1AA01-0	Operator panel Installation in control cabinet door or front plate, for plugging into all SIMOCODE pro basic units, ten LEDs for status indication and freely assignable buttons for controlling the motor, titanium gray	3UF7200-1AA01-0	1	1 unit	42J
 3UF7210-1AA01-0	Operator panel with display for SIMOCODE pro V Installation in control cabinet door or front plate, for plugging into SIMOCODE pro V, seven LEDs for status indication and freely assignable buttons for controlling the motor, multilingual display, e.g. for indication of measured values, status information or fault messages, titanium gray • English/German/French/Spanish/Portuguese/Italian/Polish/Finnish	3UF7210-1AA01-0	1	1 unit	42J

Selection and ordering data

Version		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 connecting 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 connecting cable through the basic unit. <u>Notes:</u> The SIMOCODE pro V PN GP basic unit can be used with the 3UF7300-1A.00-0 monostable digital module, the 3UF7510-1AA00-0 ground fault module, or the 3UF7700-1AA0-0 temperature module. Please order connecting cable separately, see page 10/13.																																																																				
 3UF7300-1AB00-0		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 <table><tr><td>Relay outputs</td><td>Input voltage</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td rowspan="3">Monostable</td><td>24 V DC</td><td>3UF7300-1AB00-0</td><td>1</td><td>1 unit</td><td>42J</td><td></td><td></td><td></td><td></td></tr><tr><td>110 ... 240 V AC/DC</td><td>3UF7300-1AU00-0</td><td>1</td><td>1 unit</td><td>42J</td><td></td><td></td><td></td><td></td></tr><tr><td>110 ... 240 V AC/DC, with protective coating on printed circuit board</td><td>3UF7300-1AU00-0AX0</td><td>1</td><td>1 unit</td><td>42J</td><td></td><td></td><td></td><td></td></tr><tr><td rowspan="2">Bistable</td><td>24 V DC</td><td>3UF7310-1AB00-0</td><td>1</td><td>1 unit</td><td>42J</td><td></td><td></td><td></td><td></td></tr><tr><td>110 ... 240 V AC/DC</td><td>3UF7310-1AU00-0</td><td>1</td><td>1 unit</td><td>42J</td><td></td><td></td><td></td><td></td></tr></table>		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					110 ... 240 V AC/DC, with protective coating on printed circuit board	3UF7300-1AU00-0AX0	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												
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																																																															
	110 ... 240 V AC/DC, with protective coating on printed circuit board	3UF7300-1AU00-0AX0	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 module By means of the analog module, the basic unit can be optionally expanded by 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 PB/MB RTU basic unit and max. two analog modules per pro V PN/EIP basic unit		3UF7400-1AA00-0		1		1 unit		42J																																																										
 3UF7510-1AA00-0		Ground fault module 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 <u>Note:</u> For corresponding residual-current transformers, see page 10/101.		3UF7510-1AA00-0		1		1 unit		42J																																																										
 3UF7700-1AA00-0		Temperature module Irrespective of the thermistor motor protection of the basic units, up to an additional 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 PB/MB RTU basic unit and up to two temperature modules per pro V PN/EIP basic unit		3UF7700-1AA00-0		1		1 unit		42J																																																										

Monitoring and control devices

SIMOCODE 3UF motor management and control devices

SIMOCODE pro 3UF7 motor management and control devices

Expansion modules

Multi-unit packaging,
see page 16/7.

Version	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 connecting cable; through the second system interface, the operator panel can be connected. The power supply for the expansion module is provided by the connecting cable through the basic unit.

Note:

Please order connecting cable separately, [see page 10/13](#).



3UF7600-1AU01-0

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. one multifunction module can be connected per SIMOCODE pro S basic unit

Input voltage of the digital inputs:

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

3UF7600-1AB01-0	1	1 unit	42J
3UF7600-1AU01-0	1	1 unit	42J

Selection and ordering data

Version		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 one 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 on 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. <u>Note:</u> Please order connecting cable separately, see page 10/13.						
 3UF7320-1AB00-0		DM-F Local fail-safe digital modules 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: • 24 V DC • 110 ... 240 V AC/DC				
		3UF7320-1AB00-0 3UF7320-1AU00-0		1 1	1 unit 1 unit	42J 42J
 3UF7330-1AB00-0		DM-F PROFIsafe fail-safe digital modules¹⁾ 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: • 24 V DC • 110 ... 240 V AC/DC				
		3UF7330-1AB00-0 3UF7330-1AU00-0		1 1	1 unit 1 unit	42J 42J

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

Monitoring and control devices

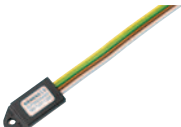
SIMOCODE 3UF motor management and control devices

SIMOCODE pro 3UF7 motor management and control devices

Accessories

Selection and ordering data

Version		Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Connecting cables (essential accessories)						
 3UF7932-0AA00-0	In different lengths for connecting basic unit, current measuring module, current/voltage measuring module, operator panel or expansion modules					
	Version	Length				
	Flat	0.025 m	3UF7930-0AA00-0	1	1 unit	42J
		0.1 m	3UF7931-0AA00-0	1	1 unit	42J
		0.15 m	3UF7934-0AA00-0	1	1 unit	42J
		0.3 m	3UF7935-0AA00-0	1	1 unit	42J
		0.5 m	3UF7932-0AA00-0	1	1 unit	42J
	Round	0.5 m	3UF7932-0BA00-0	1	1 unit	42J
		1.0 m	3UF7937-0BA00-0	1	1 unit	42J
		2.5 m	3UF7933-0BA00-0	1	1 unit	42J
PC cables and adapters						
 3UF7941-0AA00-0	USB PC cable 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 adapter For connecting an RS 232 PC cable to the USB interface of a PC		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, titanium gray		3UF7900-0AA01-0	1	1 unit	42J
	Memory module for SIMOCODE pro S and pro V For saving the complete parameterization of a SIMOCODE pro system, titanium gray		3UF7901-0AA01-0	1	1 unit	42J
Interface covers						
 3RA6936-0B	For system interface, titanium gray		3RA6936-0B	1	5 units	42F
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

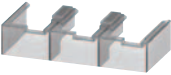
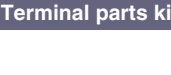
Version	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG																	
Accessories for motor control centers																						
 3UF7902-0AA00-0	With the withdrawable design frequently used in motor control centers, it is possible to integrate a SIMOCODE pro initialization module in the switchboard on a permanent basis. Feeder-related parameter and address data can then be permanently assigned to this feeder.																					
	Initialization module	3UF7902-0AA00-0	1	1 unit	42J																	
	For automatic parameterization of SIMOCODE pro S and SIMOCODE pro V basic units																					
	Y connecting cables																					
	For use in conjunction with the initialization module; connects the basic unit, current measuring module or current/voltage measuring module, and initialization module																					
<table><tr><th>System interface length</th><th>Open cable end</th></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	<table><tr><td>3UF7931-0CA00-0</td><td>1</td><td>1 unit</td><td>42J</td></tr><tr><td>3UF7932-0CA00-0</td><td>1</td><td>1 unit</td><td>42J</td></tr><tr><td>3UF7937-0CA00-0</td><td>1</td><td>1 unit</td><td>42J</td></tr></table>	3UF7931-0CA00-0	1	1 unit	42J	3UF7932-0CA00-0	1	1 unit	42J	3UF7937-0CA00-0	1	1 unit	42J
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	1	1 unit	42J																			
3UF7932-0CA00-0	1	1 unit	42J																			
3UF7937-0CA00-0	1	1 unit	42J																			
Bus connecting terminals																						
 3UF7960-0AA00-0	For shield support and strain relief of the PROFIBUS cable on a SIMOCODE pro S		1	1 unit	42J																	
Door adapters																						
 3UF7920-0AA00-0	For external connection of the system interface from a control cabinet, for example		1	1 unit	42J																	
Adapters for operator panel																						
 3UF7922-0AA00-0	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		1	1 unit	42J																	
Labeling strips																						
 3UF7925-0AA02-0	• 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	1200 units	42J																	
Push-in lugs																						
 3RV2928-0B	For screw fixing, e.g. on mounting plate (Two lugs are required per device)																					
	• Can be used for 3UF71.0, 3UF71.1 and 3UF71.2		100	10 units	41E																	
	• Can be used for 3UF700, 3UF701, 3UF73, 3UF74, 3UF75 and 3UF77		1	10 units	41H																	
	• Can be used for 3UF7020 and 3UF7600		1	10 units	41L																	

Monitoring and control devices

SIMOCODE 3UF motor management and control devices

SIMOCODE pro 3UF7 motor management and control devices

Accessories

Version	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Terminal covers					
 3RT1956-4EA1	Covers for cable lug and busbar connections				
	• Length 100 mm, can be used for 3UF71.3-1BA0.-0	3RT1956-4EA1	1	1 unit	41B
	• Length 120 mm, can be used for 3UF71.4-1BA0.-0	3RT1966-4EA1	1	1 unit	41B
 3RT1956-4EA2	Covers for box terminals				
	• Length 25 mm, can be used for 3UF71.3-1BA0.-0	3RT1956-4EA2	1	1 unit	41B
	• Length 30 mm, can be used for 3UF71.4-1BA0.-0	3RT1966-4EA2	1	1 unit	41B
 3RT1956-4EA2	Covers for screw terminals				
	Between contactor and current measuring module or current/voltage measuring module for direct mounting				
	• Can be used for 3UF71.3-1BA0.-0	3RT1956-4EA3	1	1 unit	41B
	• Can be used for 3UF71.4-1BA0.-0	3RT1966-4EA3	1	1 unit	41B
Terminal parts kits					
	Can be used for current or current/voltage measuring modules with DIN-rail connection, complete for one contactor				
	• M 8 x 25	3RT1955-4PA00	1	1 unit	41B
	• M 10 x 30	3RT1966-4PA00	1	1 unit	41B
Box terminal blocks					
 3RT1956-4G	For round and flat ribbon cables				
	• Up to 70 mm ² , can be used for 3UF71.3-1BA0.-0	3RT1955-4G	1	1 unit	41B
	• Up to 120 mm ² , can be used for 3UF71.3-1BA0.-0	3RT1956-4G	1	1 unit	41B
	• Up to 240 mm ² , can be used for 3UF71.4-1BA0.-0	3RT1966-4G	1	1 unit	41B
Bus termination modules					
 3UF1900-1KA00	With separate control supply voltage for bus termination following the last unit on the bus line				
	Supply voltage:				
	• 115/230 V AC	3UF1900-1KA00	1	1 unit	42J
	• 24 V DC	3UF1900-1KB00	1	1 unit	42J
Software					
 3ZS1322...	SIMOCODE ES (TIA Portal)				
	Software for configuring, commissioning, operating and diagnosing SIMOCODE pro based on the TIA Portal, see page 14/13.				
 3ZS1632...	SIMOCODE pro block library for SIMATIC PCS 7				
	The PCS 7 block library can be used for simple and easy integration of SIMOCODE pro into the SIMATIC PCS 7 process control system, see page 14/17.				

Overview

More information

Homepage, see www.siemens.com/siriusSiePortal, 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 signal of 1 A secondary.

Selection and ordering data

Type of mounting	Operating range	Screw terminals	PU (UNIT, SET, M)	PS*	PG
	A	Article No.	Price per PU		
For mounting on contactors and stand-alone installation					
Screw fixing	205 ... 820	3UF1868-3GA00	1	1 unit	42J



3UF1868

Accessories

For contactor type	Article No.	Price per PU	PU (UNIT, SET, M)	PS*	PG
Terminal covers					
For transformer/contactor combinations and stand-alone installation for 3UF1868-3GA00 transformer	3TX7696-0A		1	1 unit	41B

Note: One cover required per connection side.