

SIMOCODE 3UF Motor Management and Control Devices

SIMOCODE pro 3UF7 Motor Management and Control Devices

General data

Technical specifications

More information			
Technical specifications, see https://support.industry.siemens.com/cs/ww/en/ps/16337/td		"SIMOCODE pro Modbus RTU" Configuration Manual, see https://support.industry.siemens.com/cs/ww/en/view/108681641	
"SIMOCODE pro PROFIBUS" System Manual, see https://support.industry.siemens.com/cs/ww/en/view/20017780		"SIMOCODE pro Safety Fail-Safe Digital Modules" System Manual, see https://support.industry.siemens.com/cs/ww/en/view/50564852	
"SIMOCODE pro V PROFINET" System Manual, see https://support.industry.siemens.com/cs/ww/en/view/61896631		Application Manual "SIRIUS Controls with IE3/IE4 motors", see https://support.industry.siemens.com/cs/ww/en/view/94770820	
General data			
Type	3UF7		
Permissible ambient temperature			
• During operation	°C	-25 ... +60; 3UF721: 0 ... +60	
• During storage and transport	°C	-40 ... +80; 3UF721: -20 ... +70	
Degree of protection (acc. to IEC 60529)			
• 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)			
• Conducted interference, burst acc. to IEC 61000-4-4	kV	Corresponds to degree of severity 3	
	kV	2 (power ports)	
	V	1 (signal ports)	
• Conducted interference, high frequency acc. to IEC 61000-4-6	V	10	
• 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: Operator input during operation only on the front	
	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 3UF7012-1AU00-0 3UF7000-1AB00-0, 3UF7010-1AB00-0 3UF7011-1AB00-0, 3UF7020-1AB01-0 3UF7012-1AB00-0		
Control circuit			
Rated control supply voltage U_s (acc. to IEC 61131-2)	110 ... 240 AC/DC; 50/60 Hz		24 V DC
Operating range			
• SIMOCODE pro C (3UF7000) and SIMOCODE pro V (3UF7010/3UF7012)	0.85 ... 1.1 x U_s		0.80 ... 1.2 x U_s
• SIMOCODE pro V PN (3UF7011) and SIMOCODE pro S (3UF7020)			
- Operation	0.85 ... 1.1 x U_s		0.80 ... 1.2 x U_s
- Start up	0.85 ... 1.1 x U_s		0.85 ... 1.2 x U_s
Power consumption			
• SIMOCODE pro C (3UF7000) and SIMOCODE pro S (3UF7020)	7 VA/5 W		5 W
• SIMOCODE pro V (3UF7010/3UF7012)	10 VA/7 W		7 W
incl. two connected expansion modules			
• SIMOCODE pro V PN (3UF7011)	11 VA/8 W		8 W
incl. two connected expansion modules			
Rated insulation voltage U_i	V	300 (for pollution degree 3)	
Rated impulse withstand voltage U_{imp}	kV	4	
Relay outputs			
• Number			
- SIMOCODE pro C, SIMOCODE pro V, SIMOCODE pro V PN	3 monostable relay outputs		
- SIMOCODE pro S	2 monostable relay outputs		
• 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
- DC-13	2 A/24 V DC		3 A/ 230 V AC
			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	

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Basic units **IE3/IE4 ready**

Selection and ordering data

Version	SD	Screw terminals		PU (UNIT, SET, M)	PS*	PG
	d	Article No.	Price per PU			
SIMOCODE pro PROFIBUS						
	SIMOCODE pro C PROFIBUS DP interface, 12 Mbit/s, RS 485 4 I/3 O freely assignable, input for thermistor connection, monostable relay outputs Rated control supply voltage U_g : • 24 V DC • 110 ... 240 V AC/DC	► 3UF7000-1AB00-0 ► 3UF7000-1AU00-0		1 1	1 unit 1 unit	42J 42J
3UF7000-1A.00-0						
	SIMOCODE pro S¹⁾ PROFIBUS DP interface, 1.5 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_g : • 24 V DC • 110 ... 240 V AC/DC	► 3UF7020-1AB01-0 ► 3UF7020-1AU01-0		1 1	1 unit 1 unit	42J 42J
3UF7020-1A.01-0						
	SIMOCODE pro 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_g : • 24 V DC • 110 ... 240 V AC/DC	► 3UF7010-1AB00-0 ► 3UF7010-1AU00-0		1 1	1 unit 1 unit	42J 42J
3UF7010-1A.00-0						
SIMOCODE pro PROFINET						
	SIMOCODE pro V PROFINET ETHERNET/PROFINET IO, OPC UA server and web server, 100 Mbit/s, 2 x connection to bus through RJ45, PROFINET system redundancy, media redundancy protocol, 4 I/3 O freely assignable, input for thermistor connection, monostable relay outputs, can be expanded by expansion modules, web server in German/English/Chinese/Russian Rated control supply voltage U_g : • 24 V DC • 110 ... 240 V AC/DC	► 3UF7011-1AB00-0 ► 3UF7011-1AU00-0		1 1	1 unit 1 unit	42J 42J
3UF7011-1A.00-0						
SIMOCODE pro Modbus RTU						
	SIMOCODE pro V Modbus RTU²⁾ Modbus RTU interface, 57.6 kbit/s, RS485; 4I/3O freely parameterizable; input for thermistor connection; monostable relay outputs; can be expanded using expansion modules Rated control supply voltage U_g : • 24 V DC • 110 ... 240 V AC/DC	► 3UF7012-1AB00-0 ► 3UF7012-1AU00-0		1 1	1 unit 1 unit	42J 42J
3UF7012-1A.00-0						

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

²⁾ When using an operator panel with display, the product version must be E09 or higher (from 05/2015). The SIMOCODE ES (TIA Portal) V14 software is necessary for parameterization. See page 10/21.