



Basic unit SIMOCODE pro V PN, Ethernet/PROFINET IO, PN system redundancy, OPC UA server, Web server, transmission rate 100 Mbps, 2 x bus connection via RJ45, 4I/3O freely parameterizable, Us: 110...240 V AC/DC, input for thermistor connection Monostable relay outputs, expandable by extension modules

product brand name	SIRIUS
product designation	Motor management system
design of the product	basic unit 3
product type designation	SIMOCODE pro V PN
General technical data	
product function	
• bus communication	Yes
• data acquisition function	Yes
• diagnostics function	Yes
• password protection	Yes
• test function	Yes
• maintenance function	Yes
product component	
• input for thermistor connection	Yes
• digital input	Yes
• input for analog temperature sensors	No
• input for ground fault detection	No
• relay output	Yes
product extension	
• temperature monitoring module	Yes
• current measuring module	Yes
• current/voltage measuring module	Yes
• fail-safe digital I/O module	Yes
• ground-fault monitoring module	Yes
• control unit with display	Yes
• control unit	Yes
• analog I/O module	Yes
apparent power consumption	8.3 V·A
consumed active power	4.8 W
insulation voltage with degree of pollution 3 at AC rated value	300 V
surge voltage resistance rated value	4 000 V
protection class IP	IP20
shock resistance	
• acc. to IEC 60068-2-27	15g / 11 ms
• vibration resistance	1-6 Hz / 15 mm; 6-500 Hz / 2 g
switching capacity current of the NO contacts of the relay outputs at AC-15	

• at 24 V • at 120 V • at 230 V	6 A 6 A 3 A
switching capacity current of the NO contacts of the relay outputs at DC-13	
• at 24 V • at 60 V • at 125 V	2 A 0.55 A 0.25 A
mechanical service life (switching cycles) typical	10 000 000
electrical endurance (switching cycles) typical	100 000
buffering time in the event of power failure	0.02 s
reference code acc. to IEC 81346-2	F
continuous current of the NO contacts of the relay outputs	
• at 50 °C • at 60 °C	6 A 5 A
type of input characteristic	Type 1 in accordance with EN 61131-2
certificate of suitability	
• IECEx • according to ATEX directive 2014/34/EU	Yes; IECEx PTB 18.0004X BVS 06 ATEX F001, PTB 18 ATEX 5003 X
explosion device group and category according to ATEX directive 2014/34/EU	II (2) G, II (2) D, I (M2) / I (1G/M2), II (1/2) G, II (1G/2D)
Electromagnetic compatibility	
EMC emitted interference acc. to IEC 60947-1	class A
EMC immunity acc. to IEC 60947-1	corresponds to degree of severity 3
conducted interference	
• due to burst acc. to IEC 61000-4-4 • due to conductor-earth surge acc. to IEC 61000-4-5 • due to conductor-conductor surge acc. to IEC 61000-4-5 • due to high-frequency radiation acc. to IEC 61000-4-6	2 kV (power ports) / 1 kV (signal ports) 2 kV 1 kV 10 V
field-based interference acc. to IEC 61000-4-3	10 V/m
electrostatic discharge acc. to IEC 61000-4-2	6 kV contact discharge / 8 kV air discharge
conducted HF interference emissions acc. to CISPR11	corresponds to degree of severity A
field-bound HF interference emission acc. to CISPR11	corresponds to degree of severity A
Inputs/ Outputs	
product function	
• parameterizable inputs • parameterizable outputs	Yes Yes
number of inputs	4
• for thermistor connection	1
number of digital inputs with a common reference potential	4
digital input version type 1 acc. to IEC 61131	Yes
input voltage at digital input at DC rated value	24 V
number of outputs	3
number of semiconductor outputs	0
number of outputs as contact-affected switching element	3
switching behavior	monostable
type of relay outputs	Monostable
wire length for digital signals maximum	300 m
wire length for thermistor connection	
• with conductor cross-section = 0.5 mm² maximum • with conductor cross-section = 1.5 mm² maximum • with conductor cross-section = 2.5 mm² maximum	50 m 150 m 250 m
Protective and monitoring functions	
product function	
• asymmetry detection • blocking current evaluation	Yes Yes

• power factor monitoring • ground fault detection • phase failure detection • phase sequence recognition • voltage detection • monitoring of number of start operations • overvoltage detection • overcurrent detection 1 phase • undervoltage detection • undercurrent detection 1 phase • active power monitoring	Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes
product function	
• current detection • overload protection • evaluation of thermistor motor protection	Yes Yes Yes
total cold resistance number of sensors in series maximum	1.5 k Ω
response value of thermoresistor	3 400 ... 3 800 Ω
• of the short-circuit control	9 Ω
release value of thermoresistor	1 500 ... 1 650 Ω
Motor control functions	
product function	
• parameterizable overload relay • circuit breaker control • direct start • reverse starting • star-delta circuit • star-delta reversing circuit • Dahlander circuit • Dahlander reversing circuit • pole-changing switch circuit • pole-changing switch reversing circuit • slide control • valve control	Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes
Communication/ Protocol	
• protocol is supported PROFIBUS DP protocol • protocol is supported PROFINET IO protocol • protocol is supported PROFI-safe protocol • protocol is supported Modbus RTU • protocol is supported EtherNet/IP • protocol is supported OPC UA Server • protocol is supported LLDP • protocol is supported Address Resolution Protocol (ARP) • protocol is supported SNMP • protocol is supported HTTPS • protocol is supported NTP • protocol is supported Media Redundancy Protocol (MRP) • product function is supported Device Level Ring (DLR)	No Yes Yes No No Yes Yes Yes Yes Yes Yes Yes No
number of interfaces	
• acc. to PROFINET • acc. to PROFIBUS • according to Ethernet/IP	2 0 0
product function	
• web server • shared device • at the Ethernet interface Autocrossover	Yes Yes Yes

• at the Ethernet interface Autonegotiation • at the Ethernet interface Autosensing • Media Redundancy Protocol for Planned Duplication (MRPD) • is supported PROFINET system redundancy • supports PROFINergy measured values • supports PROFINergy shutdown	Yes Yes Yes Yes; In conjunction with SIMATIC PCS 7 CPU 410-5H Yes Yes
transfer rate maximum	100 Mbit/s
PROFINET conformity class	B
identification & maintenance function • I&M0 - device-specific information • I&M1 - higher level designation/location designation • I&M2 - installation date • I&M3 - comment	Yes Yes Yes Yes
type of electrical connection of the communication interface	2x RJ45
Installation/ mounting/ dimensions	
mounting position	any
fastening method	screw and snap-on mounting
height	111 mm
width	45 mm
depth	124 mm
required spacing • top • bottom • left • right	40 mm 40 mm 0 mm 0 mm
Connections/ Terminals	
product function removable terminal for auxiliary and control circuit	Yes
type of connectable conductor cross-sections • solid • finely stranded with core end processing • at AWG cables solid • at AWG cables stranded	1x (0.5 ... 4.0 mm ²), 2x (0.5 ... 2.5 mm ²) 1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.5 mm ²) 1x (20 ... 12), 2x (20 ... 14) 1x (20 ... 14), 2x (20 ... 16)
• tightening torque with screw-type terminals	0.8 ... 1.2 N·m
• tightening torque [lbf·in] with screw-type terminals	7 ... 10.3 lbf·in
Ambient conditions	
installation altitude at height above sea level • 1 maximum • 2 maximum • 3 maximum	2 000 m 3 000 m; max. +50 °C (no protective separation) 4 000 m; max. +40 °C (no protective separation)
environmental category • during operation acc. to IEC 60721 • during storage acc. to IEC 60721 • during transport acc. to IEC 60721	3K6 (no formation of ice, no condensation, relative humidity 10 ... 95%), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 1K6 (no condensation, relative humidity 10 ... 95%), 1C2 (no salt mist), 1S2 (sand must not get into the devices), 1M4 2K2, 2C1, 2S1, 2M2
relative humidity • during operation	5 ... 95 %
contact rating of auxiliary contacts according to UL	B300 / R300
Short-circuit protection	
design of short-circuit protection per output	Fuse links: gG 6 A, quick-response 10 A (IEC 60947-5-1), miniature circuit-breaker C char.: 1.6 A (IEC 60947-5-1) or 6 A (I _{LK} < 500 A)
Safety related data	
touch protection against electrical shock	finger-safe
Galvanic isolation	
(electrically) protective separation acc. to IEC 60947-1	All circuits with protective separation (double creepage paths and clearances), the information in the "Protective Separation" test report,

	No. A0258, must be observed (link see further information)	
Control circuit/ Control		
product function soft starter control	Yes	
type of voltage of the control supply voltage	AC/DC	
control supply voltage at AC		
• at 50 Hz rated value	110 ... 240 V	
• at 60 Hz rated value	110 ... 240 V	
control supply voltage frequency		
• 1 rated value	50 Hz	
• 2 rated value	60 Hz	
relative symmetrical tolerance of the control supply voltage frequency	5 %	
control supply voltage at DC		
• rated value	110 ... 240 V	
operating range factor control supply voltage rated value at DC		
• initial value	0.85	
• full-scale value	1.1	
operating range factor control supply voltage rated value at AC at 50 Hz		
• initial value	0.85	
• full-scale value	1.1	
operating range factor control supply voltage rated value at AC at 60 Hz		
• initial value	0.85	
• full-scale value	1.1	
Certificates/ approvals		
General Product Approval	EMC	For use in hazardous locations



For use in hazardous locations	Declaration of Conformity	Test Certificates
 IECEX	 ATEX	 IECEX
	Miscellaneous	 EG-Konf.
		Type Test Certificates/Test Report

Test Certificates	Marine / Shipping
Special Test Certificate	Special Test Certificate
 ABS	 LRS
	 RMRS
	 DNV GL

other		
Confirmation	 Profibus	PROFINET- Certification

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

<https://www.siemens.com/ic10>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3UF7011-1AU00-0>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UF7011-1AU00-0>

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

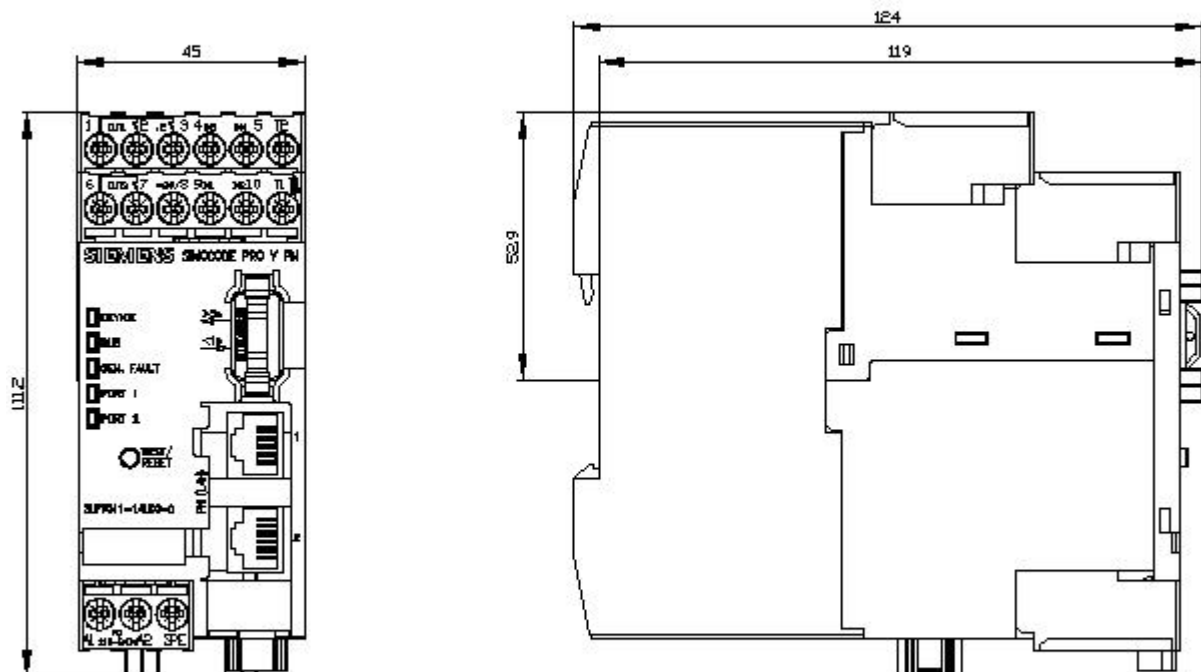
<https://support.industry.siemens.com/cs/ww/en/ps/3UF7011-1AU00-0>

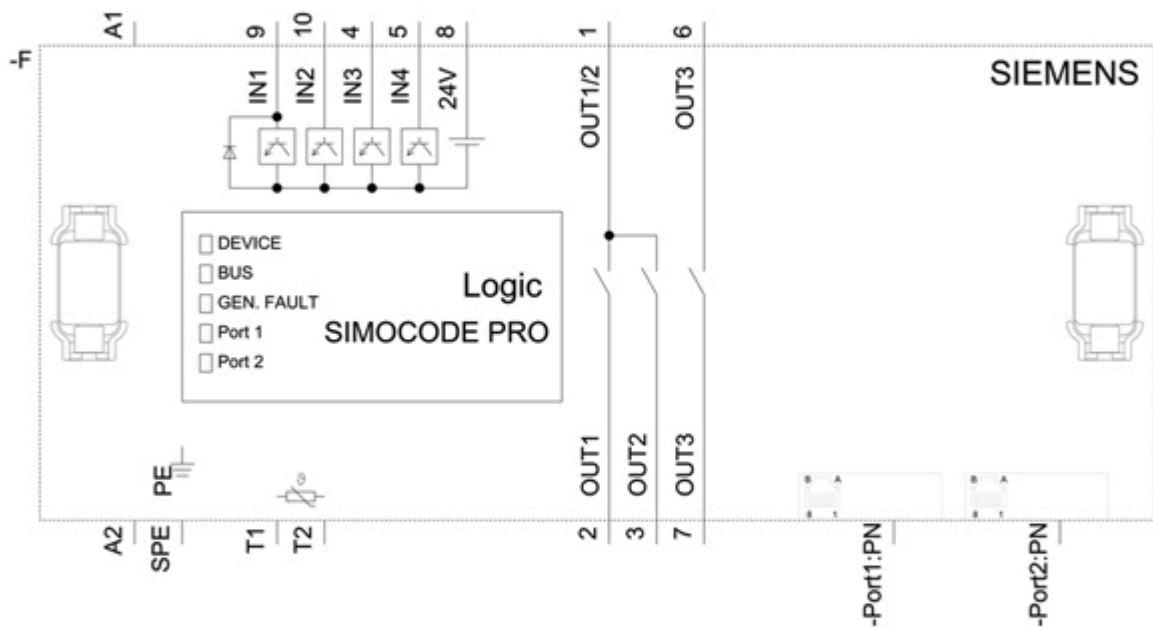
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

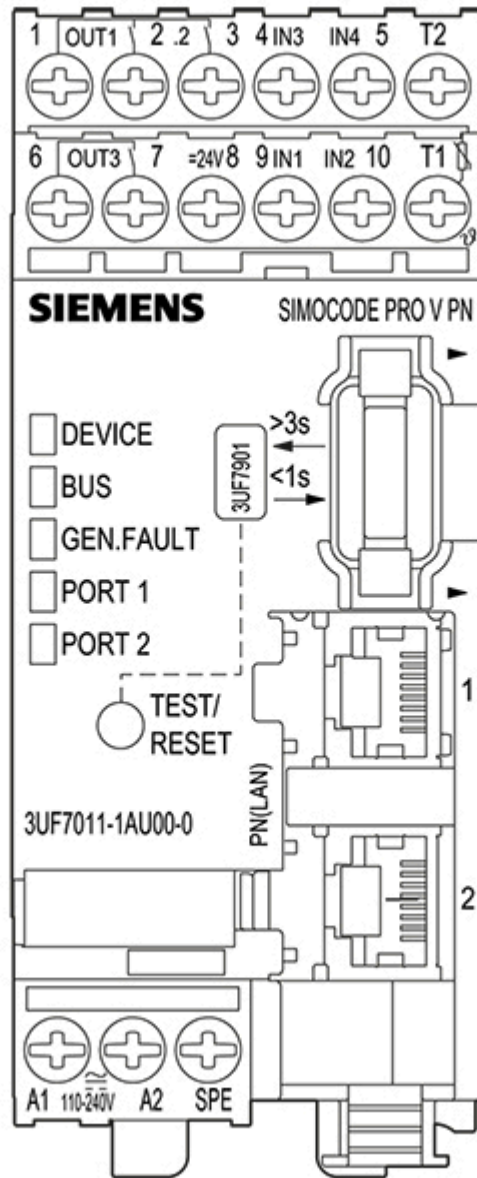
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UF7011-1AU00-0&lang=en

Test report No. A0258, protective separation

<https://support.industry.siemens.com/cs/ww/en/view/109748152>







last modified:

5/15/2020 [↗](#)