



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: 24 V DC, input for thermistor connection Monostable relay outputs, expandable by extension modules

<b>product brand name</b>	SIRIUS
<b>product designation</b>	Motor management system
<b>design of the product</b>	basic unit 3
<b>product type designation</b>	SIMOCODE pro V PN
<b>General technical data</b>	
<b>product function</b>	
• bus communication	Yes
• data acquisition function	Yes
• diagnostics function	Yes
• password protection	Yes
• test function	Yes
• maintenance function	Yes
<b>product component</b>	
• input for thermistor connection	Yes
• digital input	Yes
• input for analog temperature sensors	No
• input for ground fault detection	No
• relay output	Yes
<b>product extension</b>	
• 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
<b>consumed active power</b>	3.9 W
insulation voltage with degree of pollution 3 at AC rated value	300 V
<b>surge voltage resistance rated value</b>	4 000 V
<b>protection class IP</b>	IP20
<b>shock resistance</b>	
• according to IEC 60068-2-27	15g / 11 ms
• vibration resistance	1-6 Hz / 15 mm; 6-500 Hz / 2 g
<b>switching capacity current of the NO contacts of the relay outputs at AC-15</b>	
• at 24 V	6 A
• at 120 V	6 A
• at 230 V	3 A
<b>switching capacity current of the NO contacts of the relay outputs at DC-13</b>	

- at 24 V
- at 60 V
- at 125 V

**mechanical service life (operating cycles) typical**

electrical endurance (operating cycles) typical

**buffering time in the event of power failure**

**reference code according to IEC 81346-2**

continuous current of the NO contacts of the relay outputs

- at 50 °C
- at 60 °C

**type of input characteristic**

**Substance Prohibittance (Date)**

**certificate of suitability**

- IECEx
- according to ATEX directive 2014/34/EU
- acc. to Equipment and Protective System Intended for Use in Potentially Explosive Atmospheres Regulations 2016 (S.I. 2016 No.1107)
- according to UKCA

explosion device group and category according to ATEX directive 2014/34/EU

2 A  
0.55 A  
0.25 A  
10 000 000  
100 000  
0.02 s  
F

6 A  
5 A  
Type 1 in accordance with EN 61131-2  
03/01/2017

Yes; IECEx PTB 18.0004X  
BVS 06 ATEX F001, PTB 18 ATEX 5003 X  
ITS21UKEX0464, ITS21UKEX0455X

ITS21UKEX0464, ITS21UKEX0455X  
II (2) G, II (2) D, I (M2) / I (1G/M2), II (1/2) G, II (1G/2D)

**Electromagnetic compatibility**

EMC emitted interference according to IEC 60947-1

EMC immunity according to IEC 60947-1

**conducted interference**

- due to burst according to IEC 61000-4-4
- due to conductor-earth surge according to IEC 61000-4-5
- due to conductor-conductor surge according to IEC 61000-4-5
- due to high-frequency radiation according to IEC 61000-4-6

**field-based interference according to IEC 61000-4-3**

**electrostatic discharge according to IEC 61000-4-2**

**conducted HF interference emissions according to CISPR11**

**field-bound HF interference emission according to CISPR11**

class A  
corresponds to degree of severity 3

2 kV (power ports) / 1 kV (signal ports)  
2 kV

1 kV

10 V

10 V/m

6 kV contact discharge / 8 kV air discharge  
corresponds to degree of severity A

corresponds to degree of severity A

**Inputs/ Outputs**

**product function**

- parameterizable inputs
- parameterizable outputs

**number of inputs**

- for thermistor connection

number of digital inputs with a common reference potential

digital input version type 1 acc. to IEC 61131

input voltage at digital input at DC rated value

**number of outputs**

**number of semiconductor outputs**

**number of outputs as contact-affected switching element**

**switching behavior**

**type of relay outputs**

**wire length for digital signals maximum**

**wire length for thermistor connection**

- with conductor cross-section = 0.5 mm<sup>2</sup> maximum
- with conductor cross-section = 1.5 mm<sup>2</sup> maximum
- with conductor cross-section = 2.5 mm<sup>2</sup> maximum

Yes

Yes

4

1

4

Yes

24 V

3

0

3

monostable

Monostable

300 m

50 m

150 m

250 m

**Protective and monitoring functions**

**product function**

- asymmetry detection
- blocking current evaluation
- power factor monitoring
- ground fault detection
- phase failure detection

Yes

Yes

Yes

Yes

Yes

• phase sequence recognition	Yes
• voltage detection	Yes
• monitoring of number of start operations	Yes
• overvoltage detection	Yes
• overcurrent detection 1 phase	Yes
• undervoltage detection	Yes
• undercurrent detection 1 phase	Yes
• active power monitoring	Yes
<b>product function</b>	
• current detection	Yes
• overload protection	Yes
• evaluation of thermistor motor protection	Yes
<b>total cold resistance number of sensors in series maximum</b>	1.5 k $\Omega$
<b>response value of thermoresistor</b>	3 400 ... 3 800 $\Omega$
• of the short-circuit control	9 $\Omega$
<b>release value of thermoresistor</b>	1 500 ... 1 650 $\Omega$
<b>Motor control functions</b>	
<b>product function</b>	
• parameterizable overload relay	Yes
• circuit breaker control	Yes
• direct start	Yes
• reverse starting	Yes
• star-delta circuit	Yes
• star-delta reversing circuit	Yes
• Dahlander circuit	Yes
• Dahlander reversing circuit	Yes
• pole-changing switch circuit	Yes
• pole-changing switch reversing circuit	Yes
• slide control	Yes
• valve control	Yes
<b>Communication/ Protocol</b>	
• protocol is supported PROFIBUS DP protocol	No
• protocol is supported PROFINET IO protocol	Yes
• protocol is supported PROFI-safe protocol	Yes
• protocol is supported Modbus RTU	No
• protocol is supported EtherNet/IP	No
• protocol is supported OPC UA Server	Yes
• protocol is supported LLDP	Yes
• protocol is supported Address Resolution Protocol (ARP)	Yes
• protocol is supported SNMP	Yes
• protocol is supported HTTPS	Yes
• protocol is supported NTP	Yes
• protocol is supported Media Redundancy Protocol (MRP)	Yes
• product function is supported Device Level Ring (DLR)	No
<b>number of interfaces</b>	
• according to PROFINET	2
• according to PROFIBUS	0
• according to Ethernet/IP	0
<b>product function</b>	
• web server	Yes
• shared device	Yes
• at the Ethernet interface Autocrossover	Yes
• at the Ethernet interface Autonegotiation	Yes
• at the Ethernet interface Autosensing	Yes
• Media Redundancy Protocol for Planned Duplication (MRPD)	Yes
• is supported PROFINET system redundancy (S2)	Yes; S2 in conjunction with SIMATIC PCS 7 CPU 410-5H
• supports PROFIenergy measured values	Yes
• supports PROFIenergy shutdown	Yes
<b>transfer rate maximum</b>	100 Mbit/s

<b>PROFINET conformity class</b>	B
<b>identification &amp; maintenance function</b>	
<ul style="list-style-type: none"> <li>• I&amp;M0 - device-specific information</li> <li>• I&amp;M1 - higher level designation/location designation</li> <li>• I&amp;M2 - installation date</li> <li>• I&amp;M3 - comment</li> </ul>	Yes Yes Yes Yes
type of electrical connection of the communication interface	2x RJ45

### Installation/ mounting/ dimensions

<b>mounting position</b>	any
<b>fastening method</b>	screw and snap-on mounting
<b>height</b>	111 mm
<b>width</b>	45 mm
<b>depth</b>	124 mm
<b>required spacing</b>	
<ul style="list-style-type: none"> <li>• top</li> <li>• bottom</li> <li>• left</li> <li>• right</li> </ul>	40 mm 40 mm 0 mm 0 mm

### Connections/ Terminals

<b>product component removable terminal for auxiliary and control circuit</b>	Yes
<b>type of connectable conductor cross-sections</b>	
<ul style="list-style-type: none"> <li>• solid</li> <li>• finely stranded with core end processing</li> <li>• at AWG cables solid</li> <li>• at AWG cables stranded</li> </ul>	1x (0.5 ... 4.0 mm <sup>2</sup> ), 2x (0.5 ... 2.5 mm <sup>2</sup> ) 1x (0.5 ... 2.5 mm <sup>2</sup> ), 2x (0.5 ... 1.5 mm <sup>2</sup> ) 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

<b>installation altitude at height above sea level</b>	
<ul style="list-style-type: none"> <li>• 1 maximum</li> <li>• 2 maximum</li> <li>• 3 maximum</li> </ul>	2 000 m 3 000 m; max. +50 °C (no protective separation) 4 000 m; max. +40 °C (no protective separation)
<b>ambient temperature</b>	
<ul style="list-style-type: none"> <li>• during operation</li> <li>• during storage</li> <li>• during transport</li> </ul>	-25 ... +60 °C -40 ... +80 °C -40 ... +80 °C
<b>environmental category</b>	
<ul style="list-style-type: none"> <li>• during operation according to IEC 60721</li> <li>• during storage according to IEC 60721</li> <li>• during transport according to IEC 60721</li> </ul>	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
<b>relative humidity</b>	
<ul style="list-style-type: none"> <li>• during operation</li> </ul>	5 ... 95 %
<b>contact rating of auxiliary contacts according to UL</b>	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 <sub>K</sub> < 500 A)
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### Safety related data

<b>touch protection against electrical shock</b>	finger-safe
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### Galvanic isolation

<b>(electrically) protective separation according to IEC 60947-1</b>	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)
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### Control circuit/ Control

<b>product function soft starter control</b>	Yes
<b>type of voltage of the control supply voltage</b>	DC
<b>control supply voltage at DC</b>	
<ul style="list-style-type: none"> <li>• rated value</li> </ul>	24 V
control supply voltage 1 at DC rated value	24 V
<b>operating range factor control supply voltage rated value at DC</b>	

- initial value 0.85
  - full-scale value 1.2
- inrush current peak**
- at 24 V 17 A
- duration of inrush current peak**
- at 24 V 1.1 ms

#### Certificates/ approvals

General Product Approval	EMC	For use in hazardous locations
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[Confirmation](#)



For use in hazardous locations	Declaration of Conformity	Test Certificates
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[Special Test Certificate](#)

Test Certificates	Marine / Shipping
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[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



#### other

[Confirmation](#)



#### Further information

**Siemens has decided to exit the Russian market (see here).**

<https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business>

**Siemens is working on the renewal of the current EAC certificates.**

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

**Information on the packaging**

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

**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=3UF7011-1AB00-0>

**Cax online generator**

<http://support.automation.siemens.com/WWW/CAXorder/default.aspx?lang=en&mlfb=3UF7011-1AB00-0>

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

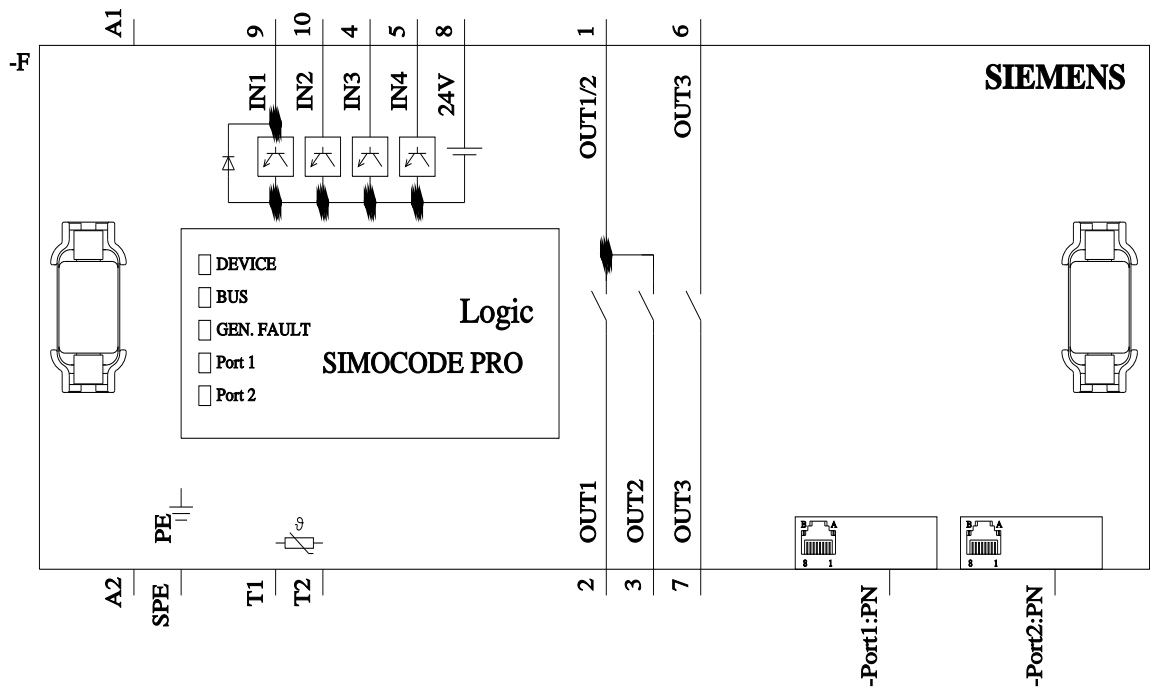
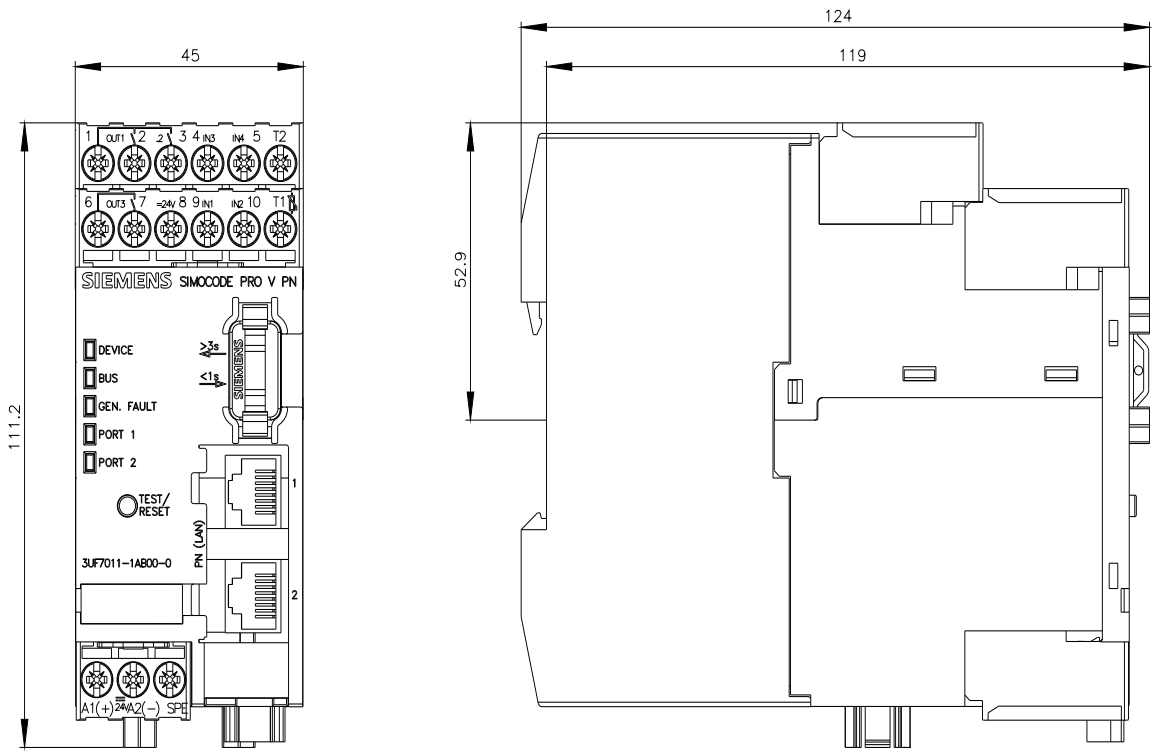
<https://support.industry.siemens.com/cs/ww/en/ps/3UF7011-1AB00-0>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3UF7011-1AB00-0&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UF7011-1AB00-0&lang=en)

**Test report No. A0258, protective separation**

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



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