



Basic unit SIMOCODE pro V PN GP , Ethernet/PROFINET IO, PN system redundancy, OPC UA server, Web server, transmission rate 100 Mbps, 2 x bus connection via RJ45, 4 I/3 Q freely parameterizable, Us: 24 V DC, input for thermistor connection Monostable relay outputs, expandable by 1 extension module(DM, TM, EM)

<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 GP
<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	No
• fail-safe digital I/O module	No
• ground-fault monitoring module	Yes
• control unit with display	No
• control unit	Yes
• analog I/O module	No
<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>	
• acc. to IEC 60068-2-27	15g / 11 ms
• <b>vibration resistance</b>	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>	
<ul style="list-style-type: none"> <li>• at 24 V</li> <li>• at 60 V</li> <li>• at 125 V</li> </ul>	2 A 0.55 A 0.25 A
mechanical service life (switching cycles) typical	10 000 000
electrical endurance (switching cycles) typical	100 000
<b>buffering time in the event of power failure</b>	0.02 s
<b>reference code acc. to IEC 81346-2</b>	F
continuous current of the NO contacts of the relay outputs	
<ul style="list-style-type: none"> <li>• at 50 °C</li> <li>• at 60 °C</li> </ul>	6 A 5 A
<b>type of input characteristic</b>	Type 1 in accordance with EN 61131-2
<b>Substance Prohibitance (Date)</b>	31.08.2018 00:00:00
<b>certificate of suitability</b>	
<ul style="list-style-type: none"> <li>• according to ATEX directive 2014/34/EU</li> </ul>	BVS 06 ATEX F001
explosion device group and category according to ATEX directive 2014/34/EU	II (2) G, II (2 ) D, I (M2)
<b>Electromagnetic compatibility</b>	
EMC emitted interference acc. to IEC 60947-1	class A
EMC immunity acc. to IEC 60947-1	corresponds to degree of severity 3
<b>conducted interference</b>	
<ul style="list-style-type: none"> <li>• due to burst acc. to IEC 61000-4-4</li> <li>• due to conductor-earth surge acc. to IEC 61000-4-5</li> <li>• due to conductor-conductor surge acc. to IEC 61000-4-5</li> <li>• due to high-frequency radiation acc. to IEC 61000-4-6</li> </ul>	2 kV (power ports) / 1 kV (signal ports) 2 kV 1 kV 10 V
<b>field-based interference acc. to IEC 61000-4-3</b>	10 V/m
<b>electrostatic discharge acc. to IEC 61000-4-2</b>	6 kV contact discharge / 8 kV air discharge
<b>conducted HF interference emissions acc. to CISPR11</b>	corresponds to degree of severity A
<b>field-bound HF interference emission acc. to CISPR11</b>	corresponds to degree of severity A
<b>Inputs/ Outputs</b>	
<b>product function</b>	
<ul style="list-style-type: none"> <li>• parameterizable inputs</li> <li>• parameterizable outputs</li> </ul>	Yes Yes
<b>number of inputs</b>	4
<ul style="list-style-type: none"> <li>• for thermistor connection</li> </ul>	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
<b>number of outputs</b>	3
<b>number of semiconductor outputs</b>	0
<b>number of outputs as contact-affected switching element</b>	3
<b>switching behavior</b>	monostable
<b>type of relay outputs</b>	Monostable
<b>wire length for digital signals maximum</b>	300 m
<b>wire length for thermistor connection</b>	
<ul style="list-style-type: none"> <li>• with conductor cross-section = 0.5 mm<sup>2</sup> maximum</li> <li>• with conductor cross-section = 1.5 mm<sup>2</sup> maximum</li> <li>• with conductor cross-section = 2.5 mm<sup>2</sup> maximum</li> </ul>	50 m 150 m 250 m
<b>Protective and monitoring functions</b>	
<b>product function</b>	
<ul style="list-style-type: none"> <li>• asymmetry detection</li> <li>• blocking current evaluation</li> <li>• power factor monitoring</li> <li>• ground fault detection</li> <li>• phase failure detection</li> <li>• phase sequence recognition</li> <li>• voltage detection</li> </ul>	Yes Yes No Yes Yes No No

• monitoring of number of start operations	Yes
• overvoltage detection	No
• overcurrent detection 1 phase	Yes
• undervoltage detection	No
• undercurrent detection 1 phase	Yes
• active power monitoring	No
<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 $\Omega$

### Motor control functions

<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	No
• Dahlander circuit	No
• Dahlander reversing circuit	No
• pole-changing switch circuit	No
• pole-changing switch reversing circuit	No
• slide control	No
• valve control	No

### Communication/ Protocol

• protocol is supported PROFIBUS DP protocol	No
• protocol is supported PROFINET IO protocol	Yes
• protocol is supported PROFI-safe protocol	No
• 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>	
• acc. to PROFINET	2
• acc. to PROFIBUS	0
• according to Ethernet/IP	0
<b>product function</b>	
• web server	Yes
• shared device	No
• 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	Yes; 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>	
• I&M0 - device-specific information	Yes
• I&M1 – higher level designation/location designation	Yes
• I&M2 - installation date	Yes
• I&M3 - comment	Yes
type of electrical connection of the communication interface	2x RJ45
<b>Installation/ mounting/ dimensions</b>	
<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>	
• top	40 mm
• bottom	40 mm
• left	0 mm
• right	0 mm
<b>Connections/ Terminals</b>	
<b>product component removable terminal for auxiliary and control circuit</b>	Yes
<b>type of connectable conductor cross-sections</b>	
• solid	1x (0.5 ... 4.0 mm <sup>2</sup> ), 2x (0.5 ... 2.5 mm <sup>2</sup> )
• finely stranded with core end processing	1x (0.5 ... 2.5 mm <sup>2</sup> ), 2x (0.5 ... 1.5 mm <sup>2</sup> )
• at AWG cables solid	1x (20 ... 12), 2x (20 ... 14)
• at AWG cables stranded	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
<b>Ambient conditions</b>	
<b>installation altitude at height above sea level</b>	
• 1 maximum	2 000 m
• 2 maximum	3 000 m; max. +50 °C (no protective separation)
• 3 maximum	4 000 m; max. +40 °C (no protective separation)
<b>ambient temperature</b>	
• during operation	-25 ... +60 °C
• during storage	-40 ... +80 °C
• during transport	-40 ... +80 °C
<b>environmental category</b>	
• during operation 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
• during storage acc. to IEC 60721	1K6 (no condensation, relative humidity 10 ... 95%), 1C2 (no salt mist), 1S2 (sand must not get into the devices), 1M4
• during transport acc. to IEC 60721	2K2, 2C1, 2S1, 2M2
<b>relative humidity</b>	
• during operation	5 ... 95 %
<b>contact rating of auxiliary contacts according to UL</b>	B300 / R300
<b>Short-circuit protection</b>	
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)
<b>Safety related data</b>	
<b>touch protection against electrical shock</b>	finger-safe
<b>Galvanic isolation</b>	
<b>(electrically) protective separation acc. 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)
<b>Control circuit/ Control</b>	
<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>	

• rated value	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

### Certificates/ approvals

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

[Type Test Certificates/Test Report](#)

Test Certificates	Marine / Shipping	other
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[Special Test Certificate](#)



[Confirmation](#)

### other

[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=3UF7011-1AB00-1>

Cax online generator

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

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

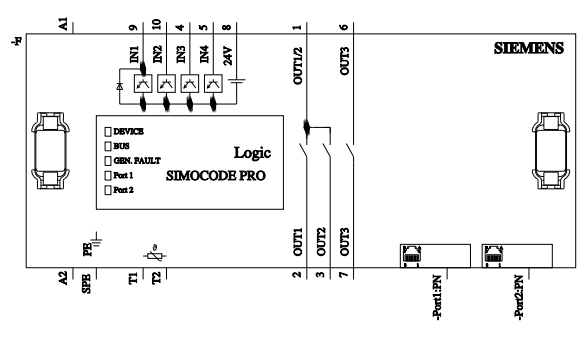
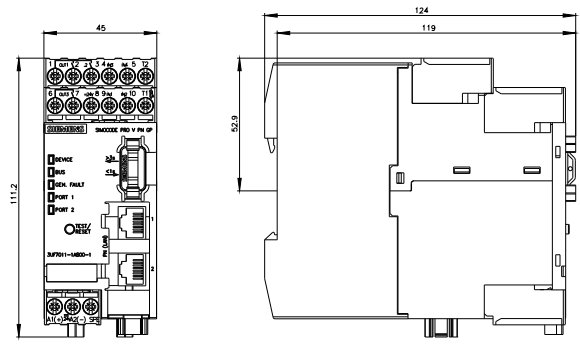
<https://support.industry.siemens.com/cs/ww/en/ps/3UF7011-1AB00-1>

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

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

Test report No. A0258, protective separation

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



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