

BASIC UNIT 3 SIMOCODE PRO V; ETHERNET / PROFINET IO; PN SYSTEM REDUNDANCY; OPC UA SERVER; WEB SERVER; TRANSMISSION RATE 100MBIT/S; 2 X BUS CONNECTION VIA RJ45 4E/3A FREELY PARAMETERIZABLE; US: DC 24V; INPUT F. THERMISTOR CONNECTION; MONOSTABLE RELAY OUTPUTS; EXPANDABLE WITH EXPANSION MODULE



product brandname	SIRIUS
Product designation	SIMOCODE pro V PN Motor Management System
Design of the product	basic unit 3

**General technical data**

<b>Product function</b>	
• soft starter control	Yes
• data acquisition function	Yes
• Diagnostics function	Yes
• Password protection	Yes
• Test function	Yes
• maintenance function	Yes
• becomes supported Device Level Ring (DLR)	No
<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>	
<ul style="list-style-type: none"> <li>• Temperature monitoring module</li> <li>• Current measuring module</li> <li>• Current/voltage measuring module</li> <li>• failsafe digital I/O module</li> <li>• Ground fault monitoring module</li> <li>• decoupling module</li> <li>• digital I/O module</li> <li>• Control unit with display</li> <li>• Control unit</li> <li>• analog I/O module</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> <li>Yes</li> </ul>
<b>Consumed active power</b>	8 W
<b>Insulation voltage</b>	
<ul style="list-style-type: none"> <li>• with degree of pollution 3 rated value</li> </ul>	300 V
<b>Surge voltage resistance rated value</b>	4 000 V
<b>Protection class IP</b>	IP20
<b>Shock resistance</b>	
<ul style="list-style-type: none"> <li>• acc. to IEC 60068-2-27</li> </ul>	15g / 11 ms
<b>Vibration resistance</b>	1-6 Hz / 15 mm; 6-500 Hz / 2 g
<b>Switching behavior</b>	monostable
<b>Switching capacity current of the NO contacts of the relay outputs at AC-15</b>	
<ul style="list-style-type: none"> <li>• at 24 V</li> <li>• at 120 V</li> <li>• at 230 V</li> </ul>	<ul style="list-style-type: none"> <li>6 A</li> <li>6 A</li> <li>3 A</li> </ul>
<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> </ul>	<ul style="list-style-type: none"> <li>2 A</li> <li>0.55 A</li> </ul>
<b>Mechanical service life (switching cycles)</b>	
<ul style="list-style-type: none"> <li>• typical</li> </ul>	10 000 000
<b>Electrical endurance (switching cycles)</b>	
<ul style="list-style-type: none"> <li>• typical</li> </ul>	100 000
<b>Buffering time in the event of power failure</b>	0.02 s
<b>Equipment marking</b>	
<ul style="list-style-type: none"> <li>• acc. to DIN EN 81346-2</li> </ul>	F
<b>Continuous current of the NO contacts of the relay outputs</b>	
<ul style="list-style-type: none"> <li>• at 50 °C</li> <li>• at 60 °C</li> </ul>	<ul style="list-style-type: none"> <li>6 A</li> <li>5 A</li> </ul>
<b>Type of input characteristic</b>	Type 1 in accordance with EN 61131-2

## Electromagnetic compatibility

<b>EMC emitted interference</b>	
<ul style="list-style-type: none"> <li>• acc. to IEC 60947-1</li> </ul>	class A
<b>Conducted interference</b>	
<ul style="list-style-type: none"> <li>• due to burst acc. to IEC 61000-4-4</li> </ul>	2 kV (power ports) / 1 kV (signal ports)
<ul style="list-style-type: none"> <li>• due to conductor-earth surge acc. to IEC 61000-4-5</li> </ul>	2 kV
<ul style="list-style-type: none"> <li>• due to conductor-conductor surge acc. to IEC 61000-4-5</li> </ul>	1 kV
<ul style="list-style-type: none"> <li>• due to high-frequency radiation acc. to IEC 61000-4-6</li> </ul>	10 V
<b>Field-bound parasitic coupling 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

### Inputs/ Outputs

<b>Product function</b>	
<ul style="list-style-type: none"> <li>• Parameterizable inputs</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Parameterizable outputs</li> </ul>	Yes
<b>Number of inputs</b>	4
<ul style="list-style-type: none"> <li>• for thermistor connection</li> </ul>	1
<b>Number of digital inputs</b>	
<ul style="list-style-type: none"> <li>• with a common reference potential</li> </ul>	4
<b>Digital input version</b>	
<ul style="list-style-type: none"> <li>• Type 1 acc. to IEC 61131</li> </ul>	Yes
Input voltage at digital input at DC rated value	24 V
<b>Number of outputs</b>	3
<b>Number of outputs as contact-affected switching element</b>	3
<b>Number of semiconductor outputs</b>	0
<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> </ul>	50 m
<ul style="list-style-type: none"> <li>• with conductor cross-section = 1.5 mm<sup>2</sup> maximum</li> </ul>	150 m
<ul style="list-style-type: none"> <li>• with conductor cross-section = 2.5 mm<sup>2</sup> maximum</li> </ul>	250 m

### Protective and monitoring functions

<b>Product function</b>	
<ul style="list-style-type: none"> <li>• Phase unbalance</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• blocking current evaluation</li> </ul>	Yes

• power factor monitoring	Yes
• Ground fault detection	Yes
• Phase failure detection	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

### Motor protection functions

<b>Product function</b>	
• Current detection	Yes
• Overload protection	Yes
• Evaluation of thermistor motor protection	Yes
<b>Response value of thermoresistor</b>	3 400 ... 3 800 Ω
<b>Release value of thermoresistor</b>	1 500 ... 1 650 Ω
<b>Explosion device group and category acc. to ATEX product directive 94/9/EC</b>	Ex II (2) GD / Ex I (M2)

### 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	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

### Communication/ Protocol

<b>Number of interfaces</b>	
• acc. to PROFINET	2
• acc. to PROFIBUS	0
• according to Ethernet/IP	0
<b>Product function Bus communication</b>	Yes
<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
• MRRT redundancy procedure	Yes
• is supported PROFINET system redundancy	Yes
• supports PROFINET energy measured values	Yes
• supports PROFINET energy shutdown	Yes

<b>Transfer rate maximum</b>	100 Mbit/s
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<b>PROFINET conformity class</b>	B
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<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

### Installation/ mounting/ dimensions

<b>Mounting position</b>	any
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<b>Mounting type</b>	screw and snap-on mounting
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<b>Height</b>	111 mm
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<b>Width</b>	45 mm
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<b>Depth</b>	124 mm
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<b>Required spacing</b>	
• top	40 mm
• bottom	40 mm
• left	0 mm
• right	0 mm

### Connections/Terminals

<b>Product function</b>	
• removable terminal for auxiliary and control circuit	Yes

<b>Type of electrical connection</b>	
• for auxiliary and control current circuit	screw-type terminals

<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 conductors solid	1x (20 ... 12), 2x (20 ... 14)
• at AWG conductors stranded	1x (20 ... 14), 2x (20 ... 16)

<b>Tightening torque</b>	
• with screw-type terminals	0.8 ... 1.2 N·m

<b>Tightening torque [lbf-in]</b>	
<ul style="list-style-type: none"> <li>with screw-type terminals</li> </ul>	7 ... 10.3 lbf-in
<b>Ambient conditions</b>	
<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 4 000 m; No protective separation at 40 °C
<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 acc. to IEC 60721</li> <li>during storage acc. to IEC 60721</li> <li>during transport acc. to IEC 60721</li> </ul>	3K6 (no formation of ice, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 3K6 (no formation of ice, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 3K6 (no formation of ice, no condensation), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6
<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
<b>Short-circuit protection</b>	
<b>Design of short-circuit protection</b>	
<ul style="list-style-type: none"> <li>per output</li> </ul>	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_K < 500 A)
<b>Safety related data</b>	
<b>Protection against electrical shock</b>	finger-safe
<b>Galvanic isolation</b>	
<b>Design of the electrical isolation</b>	Protective separation in accordance with IEC 60947-1 for all circuits
<b>Control circuit/ Control</b>	
<b>Type of voltage of the control supply voltage</b>	DC
<b>Control supply voltage 1</b>	
<ul style="list-style-type: none"> <li>at DC rated value</li> </ul>	24 V
<b>Operating range factor control supply voltage rated value at DC</b>	
<ul style="list-style-type: none"> <li>initial value</li> <li>Full-scale value</li> </ul>	0.85 1.2
<b>Certificates/approvals</b>	

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

Declaration of Conformity	Test Certificates	Shipping Approval
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[Werksbescheinigung](#)

[spezielle Prüfbescheinigungen](#)

[Typprüfbescheinigung/Werkszeugnis](#)



Shipping Approval	other
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Profibus

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Further information

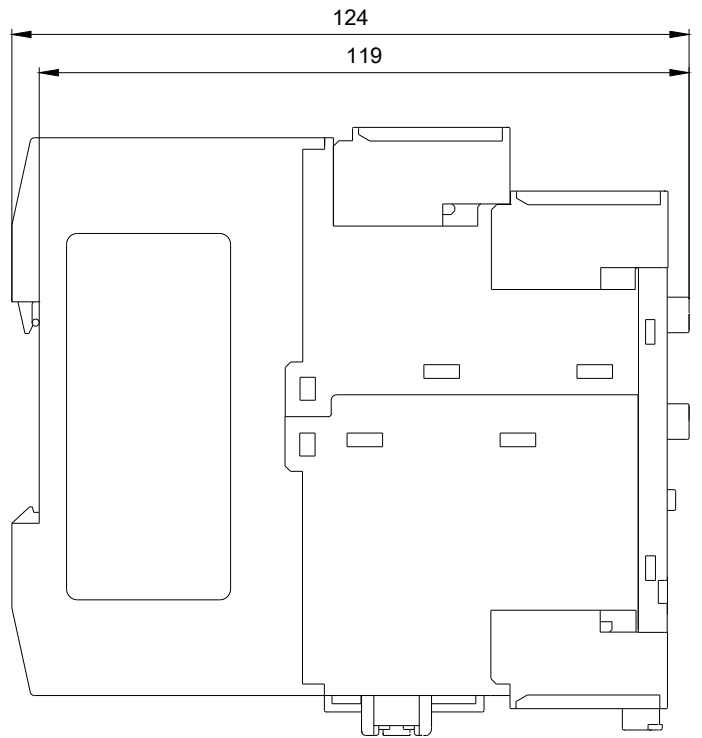
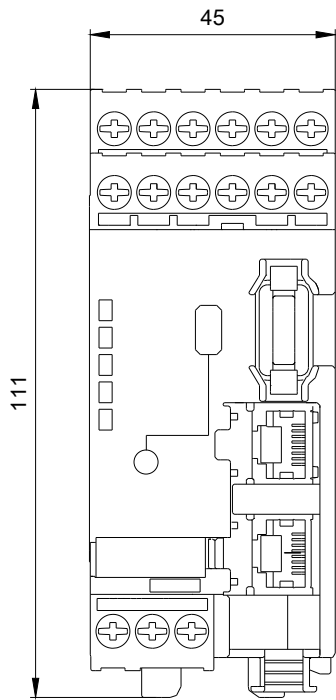
**Information- and Downloadcenter (Catalogs, Brochures,...)**  
<http://www.siemens.com/industrial-controls/catalogs>

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<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3UF7011-1AB00-0>

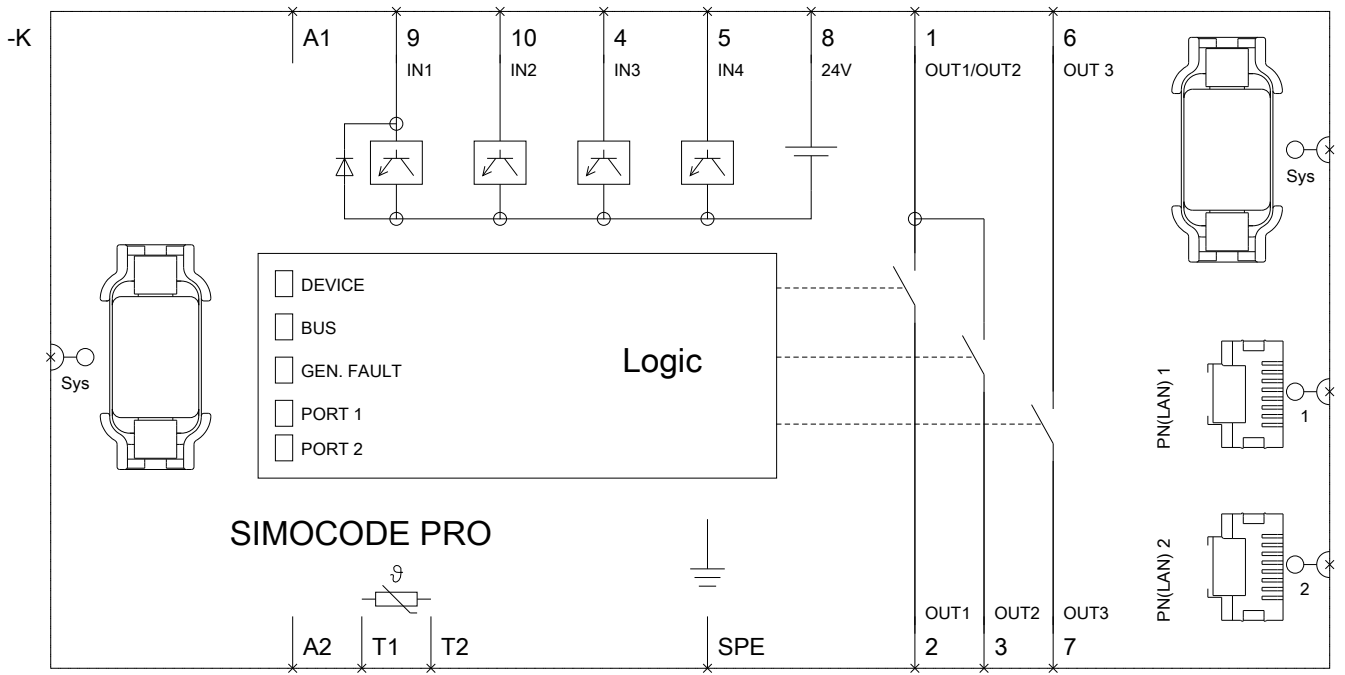
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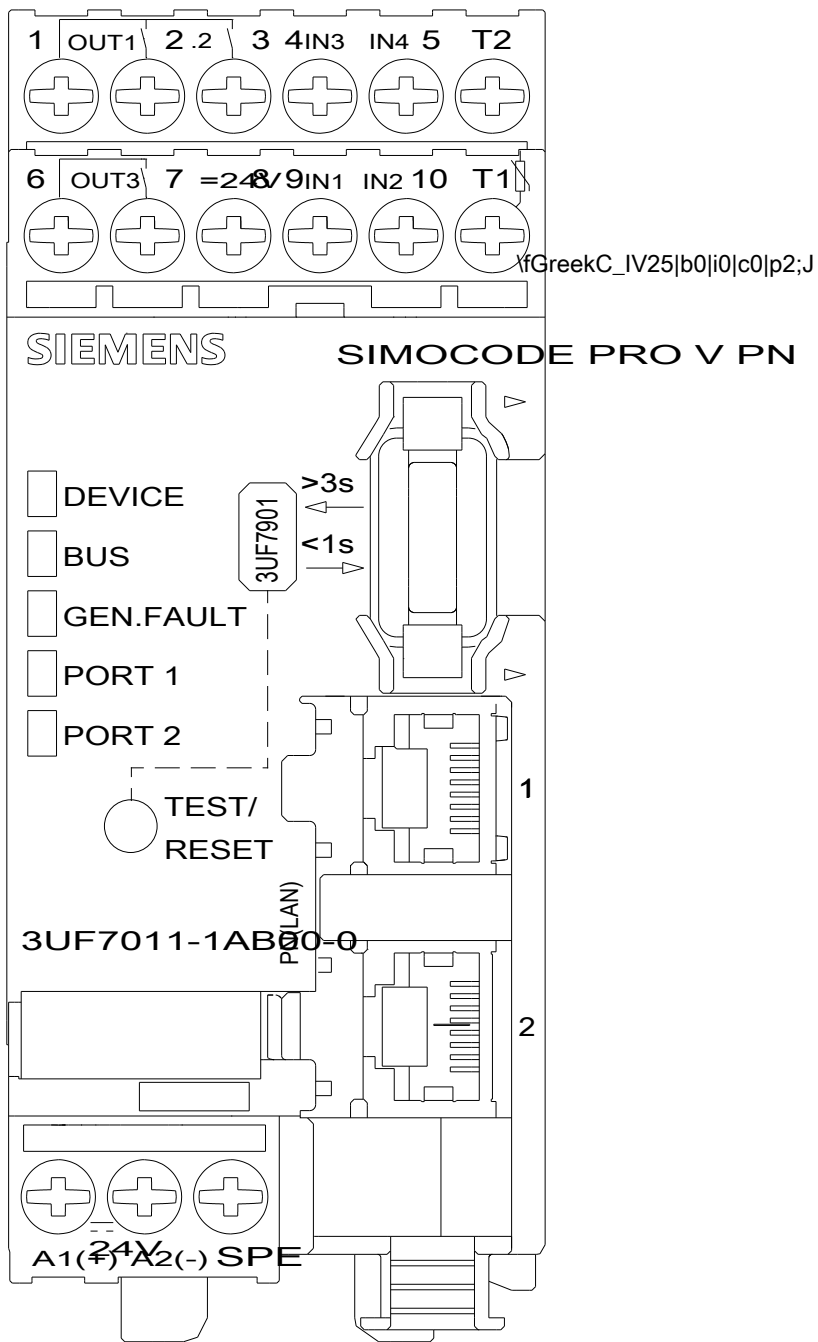
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**  
<https://support.industry.siemens.com/cs/ww/en/ps/3UF7011-1AB00-0>

**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)









last modified:

04/10/2017