



BASIC UNIT 1 SIMOCODE PRO C;  
 PROFIBUS DP-INTERFACE 12 MBIT/S, RS485;  
 4I/3O FREELY PARAMETERIZABLE;  
 US: AC/DC 110-240V;  
 THERMISTOR MOTOR PROTECTION;  
 OUTPUTS MONOSTABLE

General technical data:		
product brand name		SIRIUS
product designation		SIMOCODE pro C Motor Management System
Design of the product		basic unit 1
Number of outputs		3
Number of inputs		4
Operating voltage		
• at 50 Hz / at AC / rated value	V	110 ... 240
• at 60 Hz / at AC / rated value	V	110 ... 240
• for DC / rated value	V	110 ... 240
Operating range factor control supply voltage rated value		
• at 50 Hz / for AC / initial value		0.85
• at 60 Hz / for AC / initial value		0.85
• for DC / initial value		0.85
• at 50 Hz / for AC / final value		1.1
• at 60 Hz / for AC / final value		1.1
• for DC / final value		1.1
Active power loss / total / typical	W	5
Stored energy time / at mains power cut	s	0.05
Control supply voltage frequency		

• 1 / rated value	Hz	50
• 2 / rated value	Hz	60
<b>Relative symmetrical tolerance / of the control supply voltage frequency</b>	%	5
<b>Protection class IP</b>		IP20
<b>Protection against electrical shock</b>		finger-safe
<b>Item designation / according to DIN 40719 extendable after IEC 204-2 / according to IEC 750</b>		F
<b>Item designation / according to DIN EN 61346-2</b>		F

### Electromagnetic compatibility:

<b>EMC immunity to interference / according to IEC 60947-1</b>		corresponds to degree of severity 3
<b>Conductor-bound parasitic coupling BURST / according to IEC 61000-4-4</b>		2 kV (power ports) / 1 kV (signal ports)
<b>Conductor-bound parasitic coupling conductor-earth SURGE / according to IEC 61000-4-5</b>		2 kV
<b>Conductor-bound parasitic coupling conductor-conductor SURGE / according to IEC 61000-4-5</b>		1 kV
<b>Electrostatic discharge / according to IEC 61000-4-2</b>		6 kV contact discharge / 8 kV air discharge
<b>Field-bound parasitic coupling / according to IEC 61000-4-3</b>		10 V/m
<b>Conducted interference as high-frequency radiation / according to IEC 61000-4-6</b>		10 V
<b>EMC emitted interference / according to IEC 60947-1</b>		class A
<b>Field-bound HF-interference emission / according to CISPR11</b>		corresponds to degree of severity A
<b>Conductor-bound HF-interference emission / according to CISPR11</b>		corresponds to degree of severity A
<b>Design of the electrical isolation</b>		Protective separation in accordance with IEC 60947-1 for all circuits
<b>Impulse voltage resistance / rated value</b>	V	4,000
<b>Insulation voltage / with degree of pollution 3 / rated value</b>	V	300

### Outputs:

<b>Number of outputs</b>		
• as contact-affected switching element		3
<b>Switching behaviour</b>		monostable
<b>Design of short-circuit protection / per output</b>		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>Continuous current / of NO contacts of relay outputs</b>		
• at 50°C	A	6
• at 60°C	A	5
<b>Switching capacity current / of the NO contacts of the relay outputs</b>		
• at AC-15		
• at 24 V	A	6

• at 120 V	A	6
• at 230 V	A	3
• at DC-13		
• at 24 V	A	2
• at 60 V	A	0.55
• at 125 V	A	0.25
<b>Contact rating designation / for auxiliary contacts / according to UL</b>		B300 / R300
<b>Electrical operating cycles as operating time / typical</b>		100,000
<b>Mechanical operating cycles as operating time / typical</b>		10,000,000

#### Inputs:

<b>Number of digital inputs / with a common reference potential</b>		4
<b>Input voltage / at the digital input / for DC / rated value</b>	V	24
<b>Cable length / for digital signals / maximum</b>	m	300
<b>Design of the digital inputs / Type 1 according to IEC 61131</b>		Yes
<b>Number of inputs / for thermistor connection</b>		1
<b>Response value of thermoresistor</b>	Ω	3,400 ... 3,800
<b>Release value of thermoresistor</b>	Ω	1,500 ... 1,650
<b>Cable length / for thermistor connection / with conductor cross-section = 2.5 mm<sup>2</sup> / maximum</b>	m	250
<b>Cable length / for thermistor connection / with conductor cross-section = 1.5 mm<sup>2</sup> / maximum</b>	m	150
<b>Cable length / for thermistor connection / with conductor cross-section = 0.5 mm<sup>2</sup> / maximum</b>	m	50
<b>Product component</b>		
• Digital input		Yes
• input for thermistor connection		Yes
• input for analog temperature sensors		No
• input for ground-fault detection		No

#### Motor protection functions:

<b>Product function</b>		
• overload protection		Yes
• evaluation of thermal resistor motor protection		Yes

#### Protection functions:

<b>Product function</b>		
• asymmetry recognition		Yes
• phase disturbance recognition		Yes
• phase sequence recognition		No
• short-circuit to earth recognition		Yes
• undercurrent recognition of 1 phase		Yes

- overcurrent recognition of 1 phase
- undervoltage recognition
- overvoltage recognition
- blocking current evaluation
- active power monitoring
- power factor monitoring
- monitoring of number of start operations

Yes  
No  
No  
Yes  
No  
No  
Yes

#### 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  
No  
No  
No  
No  
No  
No  
No  
No

#### Product Function:

##### Product function

- soft starter control
- outputs parameterisable
- current detection
- voltage detection
- active power measurement
- inputs parameterisable
- diagnostic function
- data collection function
- maintenance function
- Password protection
- test function

No  
Yes  
Yes  
No  
No  
Yes  
Yes  
Yes  
Yes  
Yes  
Yes

##### Product expansion

- current measuring module
- current/voltage measuring module
- decoupling module
- digital I/O module

Yes  
No  
No  
No

• failsafe digital I/O module	No
• ground fault monitoring module	No
• temperature monitoring module	No
• analog I/O module	No
• control unit	Yes
• control unit with display	No

#### Communication:

<b>Product function / bus-communication</b>		Yes
<b>Design of the electrical connection / of the communication interface</b>		D-sub / terminal
<b>Transfer rate / maximum</b>	Mbit/s	12
<b>Number of interfaces</b>		
• acc. to PROFIBUS		1
<b>Protocol / is supported</b>		
• PROFIBUS DP protocol		Yes
• PROFINET IO protocol		No
• PROFI-safe protocol		No
• LLDP		No
• Address Resolution Protocol (ARP)		No
• HTTPS		No
• OPC UA Server		No
• NTP		No
<b>Product function</b>		
• web server		No
• shared device		No
• at the Ethernet interface		
• autonegotiation		No
• autosensing		No
• MRP redundancy protocol		No
• MRRT redundancy procedure		No
• is supported / PROFINET system redundancy		No
• supports PROFINET measured values		No
• supports PROFINET shutdown		No
<b>Identification &amp; maintenance</b>		
• I&M0 - device-specific information		Yes
• I&M1 - plant identification/location name		Yes
• I&M2 - installation date		Yes
• I&M3 - description		Yes

#### Installation/mounting/dimensions:

<b>Type of mounting</b>		screw and snap-on mounting
<b>mounting position</b>		any
<b>Width</b>	mm	45
<b>Height</b>	mm	111
<b>Depth</b>	mm	95
<b>Type of the connectable conductor cross-sections</b>		
<ul style="list-style-type: none"> <li>• solid</li> </ul>		1x (0.5 ... 4 mm <sup>2</sup> ), 2x (0.5 ... 2.5 mm <sup>2</sup> )
<ul style="list-style-type: none"> <li>• finely stranded <ul style="list-style-type: none"> <li>• with wire end processing</li> </ul> </li> </ul>		1x (0.5 ... 2.5 mm <sup>2</sup> ), 2x (0.5 ... 1.5 mm <sup>2</sup> )
<ul style="list-style-type: none"> <li>• for AWG conductors <ul style="list-style-type: none"> <li>• solid</li> </ul> </li> </ul>		1x (20 ... 12), 2x (20 ... 14)
<ul style="list-style-type: none"> <li>• stranded</li> </ul>		1x (20 ... 14), 2x (20 ... 16)
<b>Tightening torque</b>		
<ul style="list-style-type: none"> <li>• with screw-type terminals</li> </ul>	N·m	0.8 ... 1.2
<b>Tightening torque (lbf·in)</b>		
<ul style="list-style-type: none"> <li>• with screw connection</li> </ul>	lbf·in	7 ... 10.3

#### Connections:

<b>Product function / removable terminal for auxiliary and control circuit</b>	Yes
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#### Ambient conditions:

<b>Ambient temperature</b>		
<ul style="list-style-type: none"> <li>• during storage</li> </ul>	°C	-40 ... +80
<ul style="list-style-type: none"> <li>• during transport</li> </ul>	°C	-40 ... +80
<ul style="list-style-type: none"> <li>• during operating</li> </ul>	°C	-25 ... +60
<ul style="list-style-type: none"> <li>• at installation altitude ≤ 3000m / during operation / maximum</li> </ul>	°C	50
<ul style="list-style-type: none"> <li>• at installation altitude ≤ 4000 m / during operation / maximum</li> </ul>	°C	40
<b>Relative humidity</b>		
<ul style="list-style-type: none"> <li>• during operating phase</li> </ul>	%	5 ... 95
<b>Installation altitude / at a height over sea level</b>		
<ul style="list-style-type: none"> <li>• maximum</li> </ul>	m	2,000
	m	4,000
<b>Resistance against shock / according to IEC 60068-2-27</b>		15g / 11 ms
<b>Resistance against vibration</b>		1-6 Hz / 15 mm; 6-500 Hz / 2 g

#### Certificates/approvals:

<b>Ex-device group and Ex-protection category / according to ATEX-directive 94/9/EG</b>	Ex II (2) GD / Ex I (M2)
<b>varification of suitability / concerning ATEX</b>	Yes

**General Product Approval****EMC**

CCC



CSA



GOST



UL



C-TICK

**For use in hazardous locations****Test Certificates**

ATEX

[Explosion Protection Certificate](#)[Special Test Certificate](#)**Shipping Approval**

ABS



DNV



GL

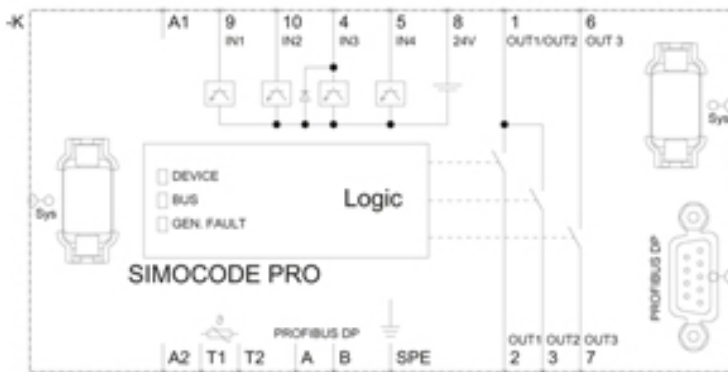
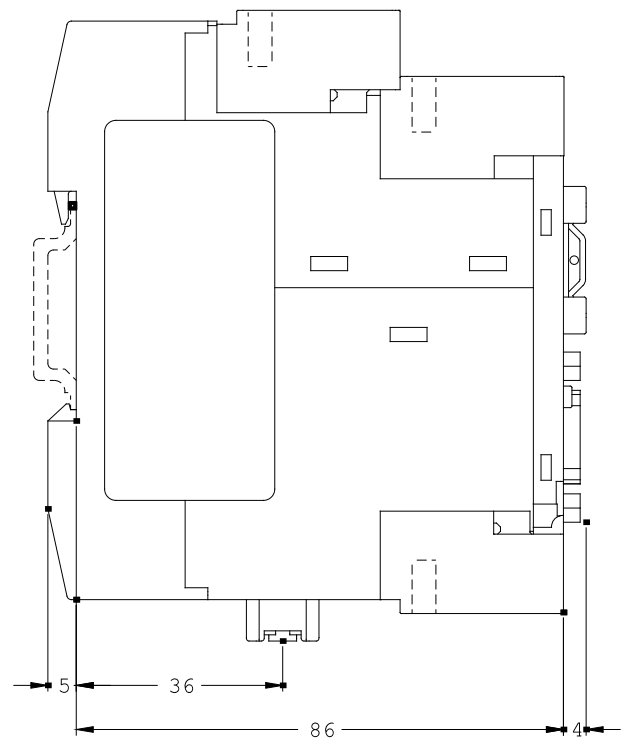
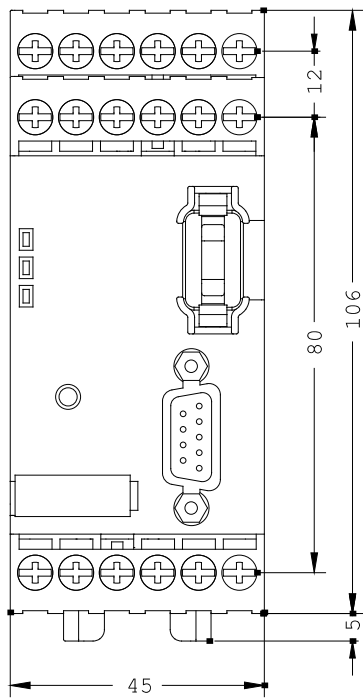


LRS

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Profibus

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last change:

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