



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

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
consumed active power	3.9 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	
• according 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	6 A
• at 120 V	6 A
• at 230 V	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

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 Prohibitance (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 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 mm² maximum
- with conductor cross-section = 1.5 mm² maximum
- with conductor cross-section = 2.5 mm² 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

Yes
Yes
Yes
Yes

<ul style="list-style-type: none"> • 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
product function	
<ul style="list-style-type: none"> • current detection • overload protection • evaluation of thermistor motor protection 	Yes Yes Yes
total cold resistance number of sensors in series maximum	1.5 kΩ
response value of thermoresistor	3 400 ... 3 800 Ω
<ul style="list-style-type: none"> • of the short-circuit control 	9 Ω
release value of thermoresistor	1 500 ... 1 650 Ω
Motor control functions	
product function	
<ul style="list-style-type: none"> • 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	
<ul style="list-style-type: none"> • protocol is supported PROFIBUS DP protocol • protocol is supported PROFINET IO protocol • protocol is supported PROIsafe 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	
<ul style="list-style-type: none"> • according to PROFINET • according to PROFIBUS • according to Ethernet/IP 	2 0 0
product function	
<ul style="list-style-type: none"> • web server • shared device • at the Ethernet interface Autocrossover • at the Ethernet interface Autonegotiation • at the Ethernet interface Autosensing • Media Redundancy Protocol for Planned Duplication (MRPD) • is supported PROFINET system redundancy (S2) • supports PROFIenergy measured values • supports PROFIenergy shutdown 	Yes Yes Yes Yes Yes Yes Yes; S2 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	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
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	40 mm
• bottom	40 mm
• left	0 mm
• right	0 mm
Connections/ Terminals	
product component removable terminal for auxiliary and control circuit	Yes
type of connectable conductor cross-sections	
• solid	1x (0.5 ... 4.0 mm²), 2x (0.5 ... 2.5 mm²)
• finely stranded with core end processing	1x (0.5 ... 2.5 mm²), 2x (0.5 ... 1.5 mm²)
• 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
Ambient conditions	
installation altitude at height above sea level	
• 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)
ambient temperature	
• during operation	-25 ... +60 °C
• during storage	-40 ... +80 °C
• during transport	-40 ... +80 °C
environmental category	
• during operation according 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 according 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 according to IEC 60721	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 _L K < 500 A)
Safety related data	
touch protection against electrical shock	finger-safe
Galvanic isolation	
(electrically) protective separation according 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	DC
control supply voltage at DC	
• rated value	24 V
control supply voltage 1 at DC rated value	24 V

operating range factor control supply voltage rated value at DC

- initial value
- full-scale value

inrush current peak

- at 24 V

duration of inrush current peak

- at 24 V

0.85
1.2
17 A
1.1 ms

Certificates/ approvals

General Product Approval

EMC



[Confirmation](#)



For use in hazardous locations

Declaration of Conformity



Test Certificates

Marine / Shipping

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



Marine / Shipping

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/WW/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

Test report No. A0258, protective separation

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



