

Basic Unit SIMOCODE PRO V EIP; EtherNet/IP; media redundancy DLR; web server; transmission rate 100MBIT/S; 2 X bus connection via RJ45 4E/3A freely parameterizable; US: AC/DC 110-240V; input . thermistor connection; monostable relay outputs; expandable with expansion module



Figure similar

Product brand name	SIRIUS
Design of the product	basic unit 3

General technical data

Product function	
• soft starter control	Yes
• data acquisition function	Yes
• Diagnostics function	Yes
• Password protection	Yes
• Test function	Yes
• maintenance function	Yes
• is supported Device Level Ring (DLR)	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
• failsafe digital I/O module	Yes
• Ground fault monitoring module	Yes
• decoupling module	Yes
• digital I/O module	Yes
• Control unit with display	Yes
• Control unit	Yes
• analog I/O module	Yes
Apparent power consumption	12 V·A
Consumed active power	8 W
Insulation voltage	
• with degree of pollution 3 rated value	300 V
Surge voltage resistance rated value	4 000 V
Protection class IP	IP20
Shock resistance	
• acc. to IEC 60068-2-27	15g / 11 ms
Vibration resistance	1-6 Hz / 15 mm; 6-500 Hz / 2 g
Switching behavior	monostable
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	2 A
• at 60 V	0.55 A
Mechanical service life (switching cycles)	
• typical	10 000 000
Electrical endurance (switching cycles)	
• typical	100 000
Buffering time in the event of power failure	0.02 s
Equipment marking	
• acc. to DIN EN 81346-2	F
Continuous current of the NO contacts of the relay outputs	
• at 50 °C	6 A
• at 60 °C	5 A
Type of input characteristic	Type 1 in accordance with EN 61131-2

Electromagnetic compatibility

EMC emitted interference	
<ul style="list-style-type: none"> • acc. to IEC 60947-1 	class A
EMI immunity acc. to IEC 60947-1	corresponds to degree of severity 3
Conducted interference	
<ul style="list-style-type: none"> • due to burst acc. to IEC 61000-4-4 	2 kV (power ports) / 1 kV (signal ports)
<ul style="list-style-type: none"> • due to conductor-earth surge acc. to IEC 61000-4-5 	2 kV
<ul style="list-style-type: none"> • due to conductor-conductor surge acc. to IEC 61000-4-5 	1 kV
<ul style="list-style-type: none"> • due to high-frequency radiation acc. to IEC 61000-4-6 	10 V
Field-bound parasitic coupling acc. to IEC 61000-4-3	10 V/m
Electrostatic discharge acc. to IEC 61000-4-2	6 kV contact discharge / 8 kV air discharge
Conducted HF-interference emissions acc. to CISPR11	corresponds to degree of severity A
Field-bound HF-interference emission acc. to CISPR11	corresponds to degree of severity A

Inputs/ Outputs

Product function	
<ul style="list-style-type: none"> • Parameterizable inputs 	Yes
<ul style="list-style-type: none"> • Parameterizable outputs 	Yes
Number of inputs	4
<ul style="list-style-type: none"> • for thermistor connection 	1
Number of digital inputs	
<ul style="list-style-type: none"> • with a common reference potential 	4
Digital input version	
<ul style="list-style-type: none"> • Type 1 acc. to IEC 61131 	Yes
Input voltage at digital input at DC rated value	24 V
Number of outputs	3
Number of outputs as contact-affected switching element	3
Number of semiconductor outputs	0
Wire length for digital signals maximum	300 m
Wire length for thermistor connection	
<ul style="list-style-type: none"> • with conductor cross-section = 0.5 mm² maximum 	50 m
<ul style="list-style-type: none"> • with conductor cross-section = 1.5 mm² maximum 	150 m
<ul style="list-style-type: none"> • with conductor cross-section = 2.5 mm² maximum 	250 m

Protective and monitoring functions

Product function	
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• Phase unbalance	Yes
• blocking current evaluation	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

Product function

• Current detection	Yes
• Overload protection	Yes
• Evaluation of thermistor motor protection	Yes

Response value of thermoresistor

3 400 ... 3 800 Ω

Release value of thermoresistor

1 500 ... 1 650 Ω

Motor control functions

Product function

• 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

Protocol is supported

• PROFIBUS DP protocol	No
• PROFINET IO protocol	No
• PROFI-safe protocol	No
• Modbus RTU	No

• EtherNet/IP	Yes
• OPC UA Server	No
• LLDP	Yes
• Address Resolution Protocol (ARP)	Yes
• SNMP	Yes
• HTTPS	No
• NTP	Yes
• Media Redundancy Protocol (MRP)	No
Number of interfaces	
• acc. to PROFINET	0
• acc. to PROFIBUS	0
• according to Ethernet/IP	2
Product function Bus communication	Yes
Product function	
• web server	Yes
• shared device	No
• at the Ethernet interface Autocrossover	Yes
• at the Ethernet interface Autonegotiation	Yes
• at the Ethernet interface Autosensing	Yes
• is supported PROFINET system redundancy	No
• supports PROFINET energy measured values	No
• supports PROFINET energy shutdown	No
Transfer rate maximum	100 Mbit/s
Identification & maintenance function	
• I&M0 - device-specific information	No
• I&M1 – higher-level designation/location designation	No
• I&M2 - installation date	No
• I&M3 - comment	No
Type of electrical connection	
• of the communication interface	2x RJ45
Installation/ mounting/ dimensions	
Mounting position	any
Mounting type	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 function	
<ul style="list-style-type: none"> removable terminal for auxiliary and control circuit 	Yes
Type of electrical connection	
<ul style="list-style-type: none"> for auxiliary and control current circuit 	screw-type terminals
Type of connectable conductor cross-sections	
<ul style="list-style-type: none"> solid 	1x (0.5 ... 4.0 mm ²), 2x (0.5 ... 2.5 mm ²)
<ul style="list-style-type: none"> finely stranded with core end processing 	1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.5 mm ²)
<ul style="list-style-type: none"> at AWG conductors solid 	1x (20 ... 12), 2x (20 ... 14)
<ul style="list-style-type: none"> at AWG conductors stranded 	1x (20 ... 14), 2x (20 ... 16)
Tightening torque	
<ul style="list-style-type: none"> with screw-type terminals 	0.8 ... 1.2 N·m
Tightening torque [lbf·in]	
<ul style="list-style-type: none"> with screw-type terminals 	7 ... 10.3 lbf·in
Ambient conditions	
Installation altitude at height above sea level	
<ul style="list-style-type: none"> 1 maximum 	2 000 m
<ul style="list-style-type: none"> 2 maximum 	3 000 m
<ul style="list-style-type: none"> 3 maximum 	4 000 m; No protective separation at 40 °C
Ambient temperature	
<ul style="list-style-type: none"> during operation 	-25 ... +60 °C
<ul style="list-style-type: none"> during storage 	-40 ... +80 °C
<ul style="list-style-type: none"> during transport 	-40 ... +80 °C
Environmental category	
<ul style="list-style-type: none"> 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
<ul style="list-style-type: none"> 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
<ul style="list-style-type: none"> during transport acc. to IEC 60721 	2K2, 2C1, 2S1, 2M2
Relative humidity	
<ul style="list-style-type: none"> during operation 	5 ... 95 %
Contact rating of auxiliary contacts according to UL	B300 / R300
Short-circuit protection	
Design of short-circuit protection	
<ul style="list-style-type: none"> 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 _K < 500 A)
Safety related data	
Protection against electrical shock	finger-safe

Galvanic isolation

Design of the electrical isolation	Protective separation in accordance with IEC 60947-1 for all circuits
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Control circuit/ Control

Type of voltage of the control supply voltage	AC/DC
Relative symmetrical tolerance of the control supply voltage frequency	5 %
Control supply voltage at AC <ul style="list-style-type: none">• at 50 Hz rated value• at 60 Hz rated value	110 ... 240 V 110 ... 240 V
Control supply voltage at DC <ul style="list-style-type: none">• rated value	110 ... 240 V
Control supply voltage frequency	50 Hz, 60 Hz
Operating range factor control supply voltage rated value at DC <ul style="list-style-type: none">• initial value• Full-scale value	0.85 1.1
Operating range factor control supply voltage rated value at AC at 50 Hz <ul style="list-style-type: none">• initial value• Full-scale value	0.85 1.1
Operating range factor control supply voltage rated value at AC at 60 Hz <ul style="list-style-type: none">• initial value• Full-scale value	0.85 1.1

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	Shipping Approval
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[Explosion Protection Certificate](#)



[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)



Shipping Approval	other
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[Confirmation](#)

[PROFIsafe-Certification](#)



Profibus

[PROFINET-Certification](#)

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/industrial-controls/catalogs>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3UF7013-1AU00-0>

Cax online generator

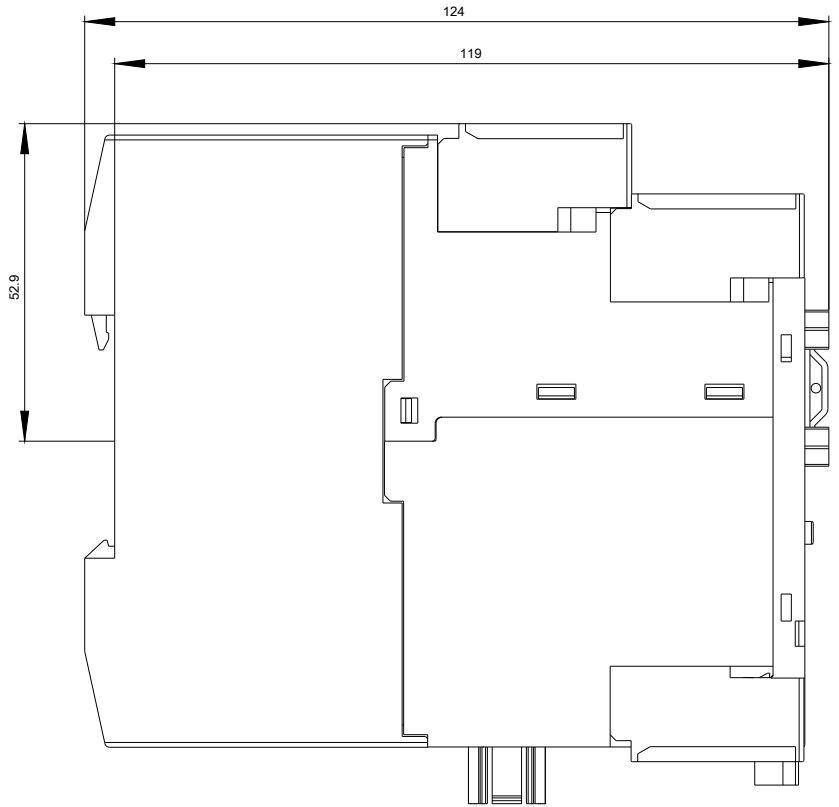
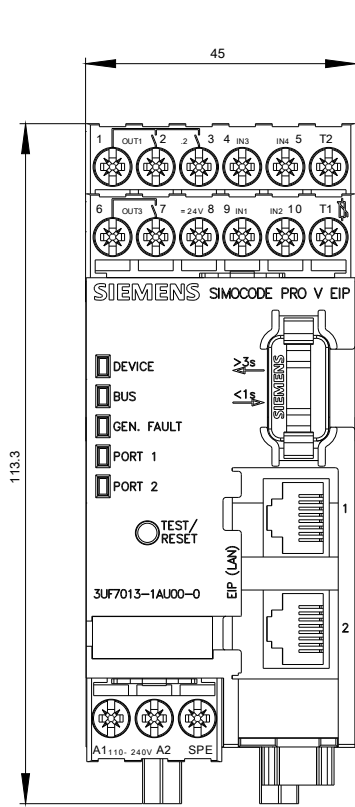
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UF7013-1AU00-0>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3UF7013-1AU00-0>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UF7013-1AU00-0&lang=en



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