SIEMENS

Product data sheet 3UF7000-1AU00-0

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		

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

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

Outputs:		
Number of outputs		
• as contact-affected switching element		3
Switching behaviour		monostable
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_K < 500 A)
Continuous current / of NO contacts of relay outputs		
• at 50°C	A	6
• at 60°C	A	5
Switching capacity current / of the NO contacts of the relay outputs		
• at AC-15		
• at 24 V	A	6

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• 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
Contact rating designation / for auxiliary contacts / according to UL		B300 / R300
Electrical operating cycles as operating time / typical		100,000
Mechanical operating cycles as operating time / typical		10,000,000

Inputs:

Number of digital inputs / with a common reference potential		4
Input voltage / at the digital input / for DC / rated value	V	24
Cable length / for digital signals / maximum	m	300
Design of the digital inputs / Type 1 according to IEC 61131		Yes
Number of inputs / for thermistor connection		1
Response value of thermoresistor	Ω	3,400 … 3,800
Release value of thermoresistor	Ω	1,500 … 1,650
Cable length / for thermistor connection / with conductor cross-section = 2.5 mm² / maximum	m	250
Cable length / for thermistor connection / with conductor cross-section = 1.5 mm² / maximum	m	150
Cable length / for thermistor connection / with conductor cross-section = 0.5 mm² / maximum	m	50
Product component		
• Digital input		Yes
• input for thermistor connection		Yes
• input for analog temperature sensors		No
• input for ground-fault detection		No

Motor protection functions:

Product function		
• overload protection		Yes
• evaluation of thermal resistor motor protection		Yes

Protection functions:

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

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• overcurrent recognition of 1 phase	Yes
• undervoltage recognition	No
• overvoltage recognition	No
• blocking current evaluation	Yes
• active power monitoring	No
• power factor monitoring	No
• monitoring of number of start operations	Yes

Motor control functions:

Product function	
• parameterizable overload relay	Yes
• circuit breaker control	Yes
• direct start	Yes
• reverse starting	Yes
• star-delta circuit	No
• 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

Product Function:

Product function	
• soft starter control	No
• outputs parameterisable	Yes
• current detection	Yes
• voltage detection	No
• active power measurement	No
• inputs parameterisable	Yes
• diagnostic function	Yes
• data collection function	Yes
• maintenance function	Yes
• Password protection	Yes
• test function	Yes
Product expansion	
• current measuring module	Yes
• current/voltage measuring module	No
• decoupling module	No
• digital I/O module	No

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• 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:

Product function / bus-communication		Yes
Design of the electrical connection / of the communication interface		D-sub / terminal
Transfer rate / maximum	Mbit/s	12
Number of interfaces		
• acc. to PROFIBUS		1
Protocol / is supported		
• PROFIBUS DP protocol		Yes
• PROFINET IO protocol		No
• PROFIsafe protocol		No
• LLDP		No
• Address Resolution Protocol (ARP)		No
• HTTPS		No
• OPC UA Server		No
• NTP		No
Product function		
• 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 PROFIenergy measured values		No
• supports PROFIenergy shutdown		No
Identification & maintenance		
• 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:

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Type of mounting		screw and snap-on mounting
mounting position		any
Width	mm	45
Height	mm	111
Depth	mm	95
Type of the connectable conductor cross-sections		
• solid		1x (0.5 ... 4 mm²), 2x (0.5 ... 2.5 mm²)
• finely stranded		
• with wire end processing		1x (0.5 ... 2.5 mm²), 2x (0.5 ... 1.5 mm²)
• for AWG conductors		
• solid		1x (20 ... 12), 2x (20 ... 14)
• stranded		1x (20 ... 14), 2x (20 ... 16)
Tightening torque		
• with screw-type terminals	N·m	0.8 … 1.2
Tightening torque (lbf·in)		
• with screw connection	lbf·in	7 … 10.3

Connections:

Product function / removable terminal for auxiliary and control circuit		Yes

Ambient conditions:

Ambient temperature		
• during storage	°C	-40 … +80
• during transport	°C	-40 … +80
• during operating	°C	-25 … +60
• at installation altitude ≤ 3000m / during operation / maximum	°C	50
• at installation altitude ≤ 4000 m / during operation / maximum	°C	40
Relative humidity		
• during operating phase	%	5 … 95
Installation altitude / at a height over sea level	m	2,000
• maximum	m	4,000
Resistance against shock / according to IEC 60068-2-27		15g / 11 ms
Resistance against vibration		1-6 Hz / 15 mm; 6-500 Hz / 2 g

Certificates/approvals:

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

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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

other					
Confirmation	Declaration of Conformity	Profibus	PROFINET-Certification	PROFISafe-Certification	other

Further information:

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

Industry Mall (Online ordering system)
http://www.siemens.com/industrial-controls/mall

Cax online generator
http://www.siemens.com/cax

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
http://support.automation.siemens.com/WW/view/en/3UF7000-1AU00-0/all

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)
http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3UF7000-1AU00-0

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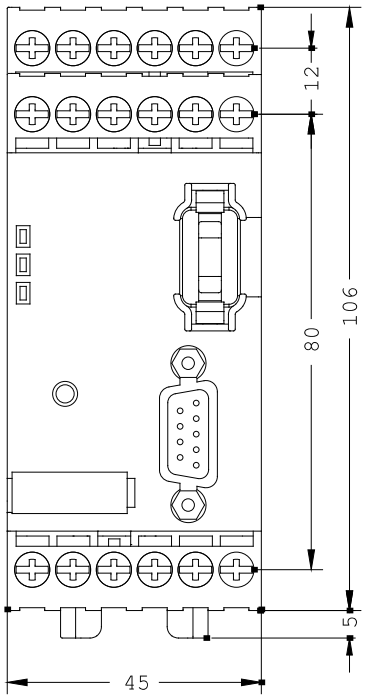

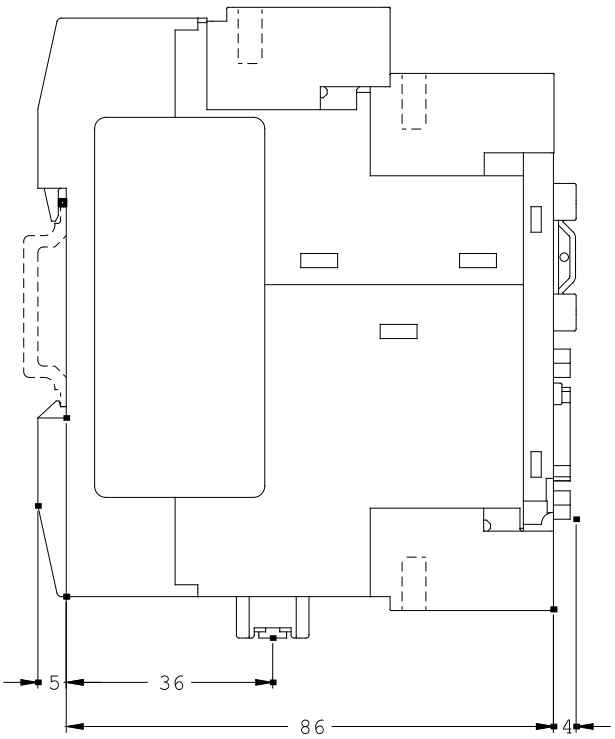

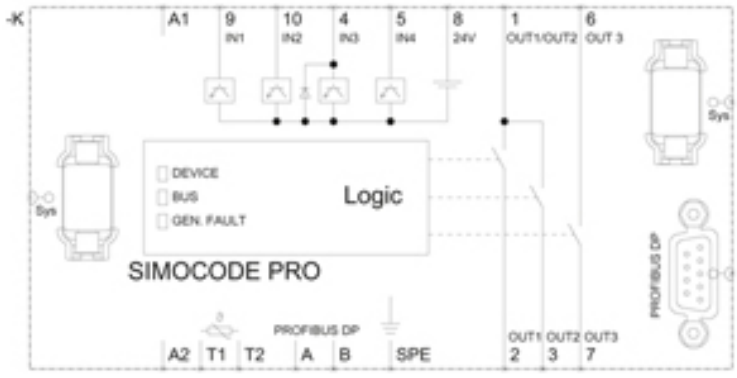

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