SIEMENS

Data sheet 3UF7011-1AB00-1

basic device SIMOCODE pro V PN GP , Ethernet/PROFINET IO, PN system redundancy, OPC UA server, web server, transfer rate 100 Mbps, 2 x bus connection via RJ45, 4 I/3 O freely configurable, Us: 24 V DC, input for thermistor connection monostable relay outputs, expandable by 1 expansion module(DM, TM, EM)

product brand name	SIRIUS
product designation	Motor management system
design of the product	basic unit 3
product type designation	SIMOCODE pro V PN GP
General technical data	
product function	
● current measurement	No
● voltage measurement	No
● active power measurement	No
● energy measurement	No
● frequency measurement	No
● 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	No
● fail-safe digital I/O module	No
● ground-fault monitoring module	Yes
● decoupling module	No
● analog I/O module	No
● digital I/O module with monostable outputs	Yes
● digital I/O module with bistable outputs	No
● control unit with display	No
● control unit	Yes
consumed active power	3.6 W
insulation voltage with degree of pollution 3 at AC rated value	300 V
surge voltage resistance rated value	4 000 V
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	2 A
● at 60 V	0.55 A
● at 125 V	0.25 A
mechanical service life (operating cycles) typical	10 000 000
electrical endurance (operating cycles) typical	100 000
buffering time in the event of power failure	0.02 s
reference code according to IEC 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
Substance Prohibitance (Date)	08/31/2018
SVHC substance name	Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one - 71868-10-5
Weight	0.344 kg
Electromagnetic compatibility	
EMC emitted interference according to IEC 60947-1	class A
EMC immunity according to IEC 60947-1	corresponds to degree of severity 3
conducted interference	
● due to burst according to IEC 61000-4-4	2 kV (power ports) / 1 kV (signal ports)
● due to conductor-earth surge according to IEC 61000-4-5	2 kV
● due to conductor-conductor surge according to IEC 61000-4-5	1 kV
● due to high-frequency radiation according to IEC 61000-4-6	10 V
field-based interference according to IEC 61000-4-3	10 V/m
electrostatic discharge according to IEC 61000-4-2	6 kV contact discharge / 8 kV air discharge
conducted HF interference emissions according to CISPR11	corresponds to degree of severity A
field-bound HF interference emission according to CISPR11	corresponds to degree of severity A
Inputs/ Outputs	
product function	
● parameterizable inputs	Yes
● parameterizable outputs	Yes
number of inputs	4
● for thermistor connection	1
number of digital inputs with a common reference potential	4
digital input version	
● type 1 acc. to IEC 61131	Yes
input voltage at digital input at DC	
● rated value	24 V
number of outputs	3
number of semiconductor outputs	0
number of outputs as contact-affected switching element	3
switching behavior	monostable
number of relay outputs	3
type of relay outputs	Monostable
wire length for digital signals maximum	300 m
wire length for thermistor connection	
● with conductor cross-section = 0.5 mm² maximum	50 m
● with conductor cross-section = 1.5 mm² maximum	150 m
● with conductor cross-section = 2.5 mm² maximum	250 m
Protective and monitoring functions	

product function	
● asymmetry detection	Yes
● blocking current evaluation	Yes
● power factor monitoring	No
● ground fault detection	Yes
● ground-fault monitoring	No
● phase failure detection	Yes
● phase sequence recognition	No
● voltage detection	No
● monitoring of number of start operations	Yes
● overvoltage detection	No
● overcurrent detection 1 phase	Yes
● undervoltage detection	No
● undercurrent detection 1 phase	Yes
● active power monitoring	No
product function	
● current detection	Yes
● overload protection	Yes
● evaluation of thermistor motor protection	Yes
total cold resistance number of sensors in series maximum	1.5 kΩ
response value of thermoresistor	3 400 ... 3 800 Ω
● of the short-circuit control	9 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	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
Communication/ Protocol	
protocol is supported	
● PROFIBUS DP protocol	No
● PROFINET IO protocol	Yes
● PROFIsafe protocol	No
● Modbus RTU	No
● EtherNet/IP	No
● OPC UA Server	Yes
● LLDP	Yes
● Address Resolution Protocol (ARP)	Yes
● SNMP	Yes
● HTTPS	Yes
● NTP	Yes
● Media Redundancy Protocol (MRP)	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
● Media Redundancy Protocol for Planned Duplication (MRPD)	Yes
● is supported Device Level Ring (DLR)	No
● is supported PROFINET system redundancy (S2)	Yes

● supports PROFIenergy measured values	Yes
● supports PROFIenergy shutdown	Yes
transfer rate	100 Mbit/s
transfer rate maximum	100 Mbit/s
PROFINET conformity class	C
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 electrical connection	
● for auxiliary and control circuit	screw-type terminals
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)
● for AWG cables solid	1x (20 ... 12), 2x (20 ... 14)
● for 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_K < 500 A)
Electrical Safety	
touch protection against electrical shock	finger-safe
ATEX	
certificate of suitability	
● IECEx	Yes; IECEx BVS 20.0020
● according to ATEX directive 2014/34/EU	BVS 06 ATEX F001
● according to UKCA	ITS21UKEX0464

explosion device group and category according to ATEX directive 2014/34/EU	II (2) G, II (2) D, I (M2)
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)
design of the electrical isolation	Protective separation in accordance with IEC 60947-1 for all circuits
• note	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	0.85
• full-scale value	1.2
inrush current peak	
• at 24 V	17 A
duration of inrush current peak	
• at 24 V	1.1 ms

Approvals Certificates

General Product Approval | **EMV**

CCC | EG-Konf. | UKCA | UL | EAC | RCM

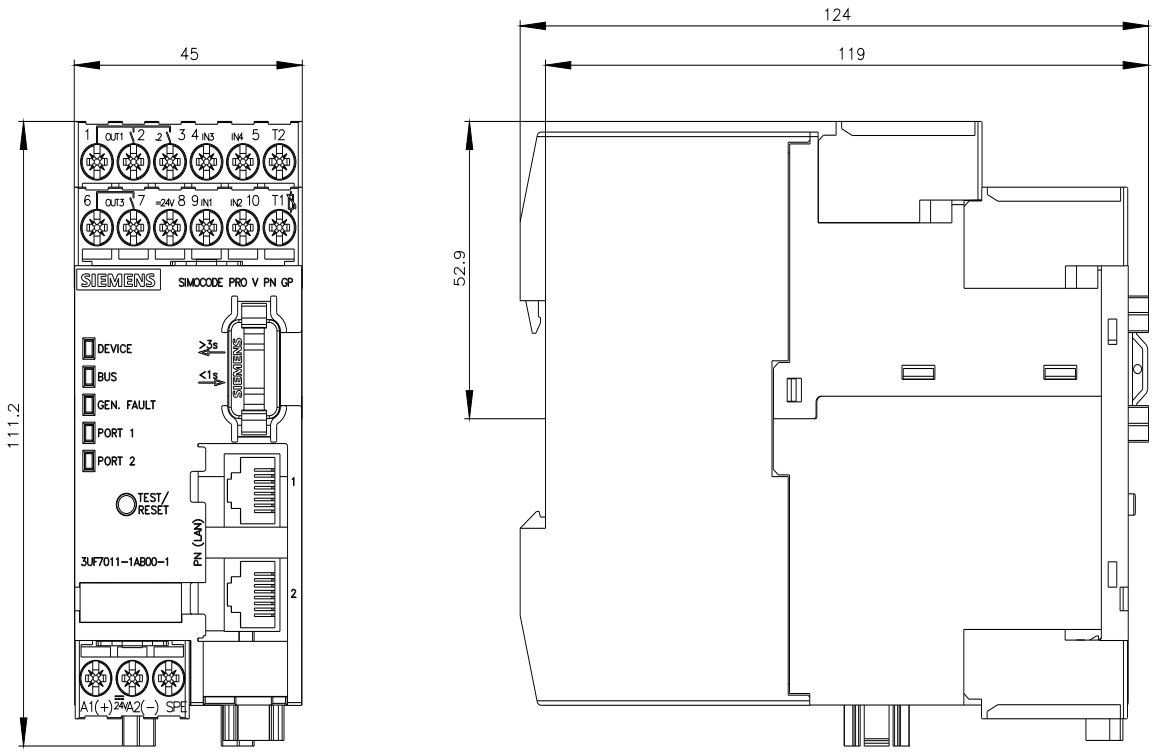
EMV	For use in hazardous locations				
KC	ATEX	IECEx	IECEx	ATEX	Miscellaneous

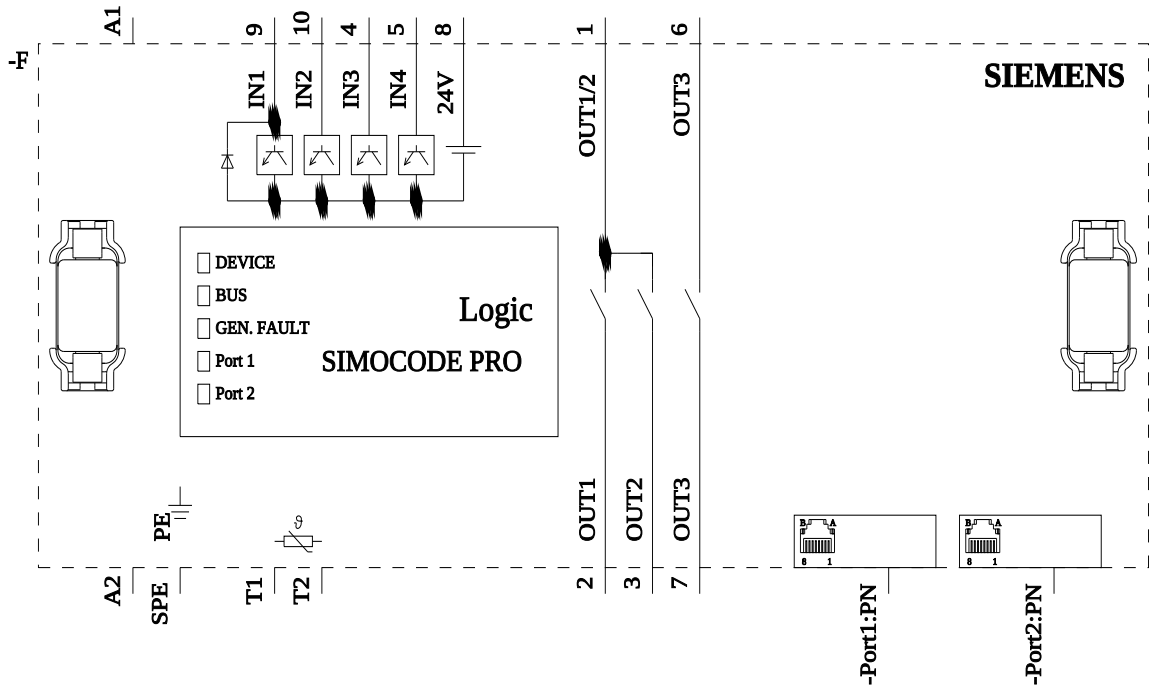
Test Certificates			Marine / Shipping		
Special Test Certificate	Type Test Certificates/Test Report	Special Test Certificate	ABS	DNV	LRS

Marine / Shipping	other	Environment		Industrial Communication	
RMRS	Confirmation	EPD	Environmental Confirmations	Profibus	PROFINET

Further information

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=3UF7011-1AB00-1
Cax online generator
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UF7011-1AB00-1
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3UF7011-1AB00-1
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UF7011-1AB00-1&lang=en





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