

basic device SIMOCODE M-CP MCC, Single Pair Ethernet, 10BASE-T1L IEEE 802.3cg SPE, PROFINET IO, OPC UA and web server, 1 bus connection 3-pole terminal, Us: 110-240 V AC/DC, 6 I/O freely configurable, input for thermistor, input for ground fault transformer 3UL23



product brand name	SIMOCODE
product designation	Motor management system
manufacturer's article number	1 of residual current transformer connectable 2 of residual current transformer connectable 3 of residual current transformer connectable 4 of residual current transformer connectable 5 of residual current transformer connectable 6 of residual current transformer connectable 3UL2302-1A 3UL2303-1A 3UL2304-1A 3UL2305-1A 3UL2306-1A 3UL2307-1A
General technical data	
certificate of suitability	CE / RoHS
product function	- current measurement - voltage measurement - active power measurement - energy measurement - frequency measurement - bus communication - automatic start - data acquisition function - diagnostics function - residual current display - password protection - test function - maintenance function - MRRT redundancy procedure No No Yes No No Yes Yes Yes Yes Yes Yes Yes Yes No
product feature protective coating on printed-circuit board	No; on request
product component	- input for thermistor connection - digital input - input for residual current converter - input for analog temperature sensors - input for ground fault detection - relay output Yes Yes Yes No Yes Yes
product extension	- temperature monitoring module - current measuring module - current/voltage measuring module - fail-safe digital I/O module No No Yes No

• ground-fault monitoring module • decoupling module • analog I/O module • digital I/O module with monostable outputs • digital I/O module with bistable outputs • control unit with display • control unit	No
apparent power consumption	6.5 VA
consumed active power	3.1 W
insulation voltage with degree of pollution 3 at AC rated value	250 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 • at 120 V • at 230 V	6 A 6 A 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	2 A 0.55 A 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	0.2 s
adjustable current response value current 1 initial value	0.03 A
adjustable current response value current 1 full-scale value	40 A
reference code according to IEC 81346-2	F
continuous current of the NO contacts of the relay outputs	
• at 50 °C • at 60 °C	6 A 5 A
Substance Prohibitance (Date)	01/01/2024
SVHC substance name	Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 4,4'-isopropylidenediphenol (Bisphenol A, BPA) - 80-05-7 Lead titanium trioxide - 12060-00-3
Net Weight	0.355 kg
Sensor	
measurable line frequency initial value	20 Hz
measurable line frequency full-scale value	120 Hz
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 • 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	2 kV (power ports) / 1 kV (signal ports) 2 kV 1 kV 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	6
• for thermistor connection	1
number of digital inputs with a common reference potential	5
digital input version	
• type 1 acc. to IEC 61131	No
• type 2 acc. to IEC 61131	No
number of analog inputs	0
number of sensor inputs for ground fault detection	1
input voltage at digital input at DC	
•	110 ... 240 V
input voltage at digital input at AC	110 ... 240 V
number of outputs	4
number of semiconductor outputs	0
number of outputs as contact-affected switching element	4
number of analog outputs	0
switching behavior	monostable
number of relay outputs	4
type of relay outputs	Monostable
wire length for digital signals maximum	400 m
wire length between sensor and electronics evaluation device with Cu 1.5 mm² and 150 nF/km maximum	400 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	Yes
• ground fault detection	Yes
• ground-fault monitoring	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
type of current for monitoring	AC current and pulsating DC current (type A) acc. to IEC 62020-1
response time maximum	100 ms
diagnostics function at sensor input with residual current transformer short-circuit detection	Yes
diagnostics function at sensor input with residual current transformer open-circuit detection	Yes
relative measurement deviation of residual current transformer	2.5 %
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	
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• 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 No Yes Yes Yes Yes
Communication/ Protocol	
protocol is supported	
• PROFIBUS DP protocol • PROFINET IO protocol • PROFI-safe protocol • Modbus RTU • Modbus TCP • EtherNet/IP • OPC UA Server • LLDP • Address Resolution Protocol (ARP) • SNMP • HTTPS • NTP • Media Redundancy Protocol (MRP)	No Yes No No Yes Yes Yes Yes Yes Yes Yes Yes No
product function	
• 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 Device Level Ring (DLR) • is supported PROFINET system redundancy (S2) • supports PROFINET energy measured values • supports PROFINET energy shutdown	Yes Yes No Yes No No No Yes No No
transfer rate	10 Mbit/s
transfer rate maximum	10 Mbit/s
PROFINET conformity class	B
identification & maintenance function	
• I&M0 - device-specific information • I&M1 - higher level designation/location designation • I&M2 - installation date • I&M3 - comment	Yes Yes Yes Yes
type of electrical connection of the communication interface	spring-loaded terminal (push-in)
Installation/ mounting/ dimensions	
mounting position	any
fastening method	screw and snap-on mounting
height	65.6 mm
width	118 mm
depth	77.5 mm
required spacing	
• top • bottom • left • right	10 mm 20 mm 0 mm 0 mm

Connections/ Terminals	
product component removable terminal for auxiliary and control circuit	Yes
type of electrical connection • for auxiliary and control circuit • of the relay outputs • of the thermistor connection • of the fail-safe digital input • of the connection for ground fault input • of the 1-Wire® connection • of Industrial Ethernet interface	spring-loaded terminals (push-in) spring-loaded terminal (push-in) spring-loaded terminal (push-in) spring-loaded terminal (push-in) spring-loaded terminal (push-in) spring-loaded terminal (push-in) spring-loaded terminal (push-in)
type of connectable conductor cross-sections • for supply voltage for AWG cables solid • of the relay outputs solid • of the relay outputs finely stranded with core end processing • of the relay outputs for AWG cables solid • of the 1-Wire® connection solid • of the 1-Wire® connection finely stranded with core end processing • of the 1-Wire® connection for AWG cables solid • of the connection for ground fault input solid • of the connection for ground fault input finely stranded with core end processing • of the connection for ground fault input for AWG cables solid • of the fail-safe digital input solid • of the fail-safe digital input finely stranded with core end processing • of the fail-safe digital input for AWG cables solid • of the thermistor connection solid • of the thermistor connection finely stranded with core end processing • of the thermistor connection for AWG cables solid	1x (24 ... 12) 1x (0.2 ... 2.5 mm²) 1x (0.25 ... 2.5 mm²) 1x (24 ... 12) 1x (0.2 ... 1.5 mm²) 1x (0.25 ... 1.5 mm²) 1x (26 ... 16) 1x (0.2 ... 1.5 mm²) 1x (0.25 ... 1.5 mm²) 1x (26 ... 16) 1x (0.2 ... 1.5 mm²) 1x (0.25 ... 1.5 mm²) 1x (26 ... 16) 1x (0.2 ... 1.5 mm²) 1x (0.25 ... 1.5 mm²) 1x (26 ... 16)
Ambient conditions	
installation altitude at height above sea level maximum • note	2 000 m Restrictions apply to higher installation altitudes, see: https://support.industry.siemens.com/cs/document/109995153
ambient temperature • during operation • during storage • during transport	-25 ... +60 °C -40 ... +80 °C -40 ... +80 °C
environmental category • during operation according to IEC 60721 • during storage according to IEC 60721 • during transport according to IEC 60721	3K24 (condensation occasionally, no precipitation, no water, no ice formation, relative humidity 10 ... 95%), 3C3 (no salt mist), 3B2, 3S5 (sand must not enter the device), 3M6 1K22 (condensation occasionally, no precipitation, no water, no ice formation, relative humidity 10 ... 95%), 1C2 (no salt mist), 1B2, 1S10 (sand must not enter the device), 1M4 2K12 (no condensation, no thermal shock), 2C1 (no salt mist), 2B2, 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: 2 A (@1 kA) and 6 A (I _{LK} < 500 A)
Electrical Safety	
touch protection against electrical shock	finger-safe
ATEX	
certificate of suitability • IECEx	Yes
Galvanic isolation	

(electrically) protective separation according to IEC 60947-1	all circuits with protective separation (double clearances and creepage distances)		
design of the electrical isolation	Protective separation in accordance with IEC 60947-1 for all circuits		
Main circuit			
operating frequency rated value	50 ... 60 Hz		
Control circuit/ Control			
product function soft starter control	Yes		
type of voltage of the control supply voltage	AC/DC		
control supply voltage at AC			
• at 50 Hz rated value	110 ... 240 V		
• at 60 Hz rated value	110 ... 240 V		
control supply voltage frequency			
• 1 rated value	50 Hz		
• 2 rated value	60 Hz		
relative symmetrical tolerance of the control supply voltage frequency	5 %		
operating range factor control supply voltage rated value at DC			
• initial value	0.85		
• full-scale value	1.1		
operating range factor control supply voltage rated value at AC at 50 Hz			
• initial value	0.85		
• full-scale value	1.1		
operating range factor control supply voltage rated value at AC at 60 Hz			
• initial value	0.85		
• full-scale value	1.1		
inrush current peak			
• at 240 V	10 A		
duration of inrush current peak			
• at 240 V	0.5 ms		
Approvals Certificates			
General Product Approval	EMV	other	



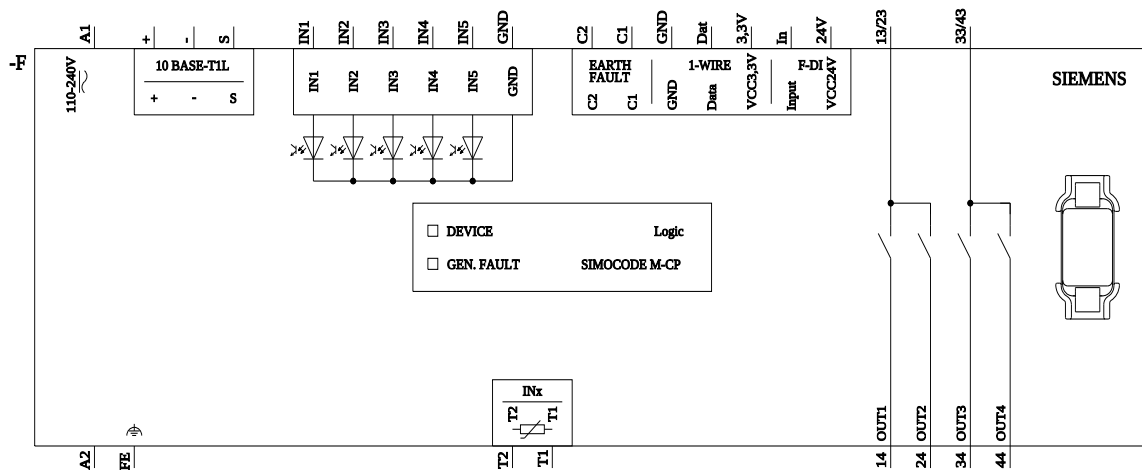
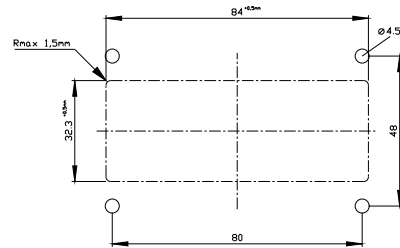
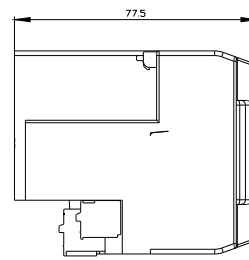
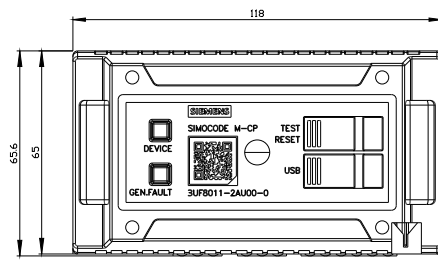
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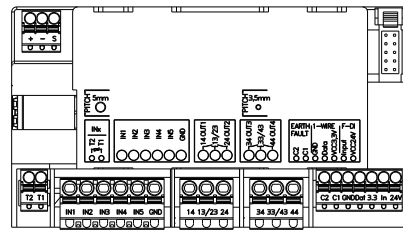
[Confirmation](#)



other	Environment	Industrial Communication	
Declaration of Conformity			Environmental Confirmations
			

Further information			
Information on the packaging			
https://support.industry.siemens.com/cs/ww/en/view/109813875			
Information for data generation and storage			
https://support.industry.siemens.com/cs/ww/en/view/109995012			
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=3UF8011-2AU00-0			
Cax online generator			
https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UF8011-2AU00-0			
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)			
https://support.industry.siemens.com/cs/ww/en/ps/3UF8011-2AU00-0			
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)			
https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UF8011-2AU00-0&lang=en			





12/16/2025