

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: 24 V 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	No
• decoupling module	No
• analog I/O module	No
• digital I/O module with monostable outputs	No
• digital I/O module with bistable outputs	No
• control unit with display	Yes
• control unit	No
apparent power consumption	6 VA
consumed active power	3 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	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	0.2 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	6 A
• at 60 °C	5 A
type of input characteristic	Type 1 in accordance with EN 61131-2
Substance Prohibitance (Date)	01/01/2024
SVHC substance name	Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol - 119-47-1 4,4'-isopropylidenediphenol (Bisphenol A, BPA) - 80-05-7 Lead titanium trioxide - 12060-00-3
Net Weight	0.325 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	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	6
• for thermistor connection	1
number of digital inputs with a common reference potential	6
digital input version	
• type 1 acc. to IEC 61131	Yes
• 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	
• rated value	24 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	600 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	
• 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	No
• 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	Yes
• PROFIsafe protocol	No
• Modbus RTU	No
• Modbus TCP	Yes
• EtherNet/IP	Yes
• OPC UA Server	Yes
• LLDP	Yes
• Address Resolution Protocol (ARP)	Yes
• SNMP	Yes
• HTTPS	Yes
• NTP	Yes
• Media Redundancy Protocol (MRP)	No
product function	
• web server	Yes
• shared device	Yes
• at the Ethernet interface Autocrossover	No
• at the Ethernet interface Autonegotiation	Yes
• at the Ethernet interface Autosensing	No
• Media Redundancy Protocol for Planned Duplication (MRPD)	No
• is supported Device Level Ring (DLR)	No
• is supported PROFINET system redundancy (S2)	Yes
• supports PROFINergy measured values	No
• supports PROFINergy shutdown	No
transfer rate	10 Mbit/s
transfer rate maximum	10 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	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	10 mm
• bottom	20 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 • 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	DC
relative symmetrical tolerance of the control supply voltage frequency	5 %
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	0.8
• full-scale value	1.2
inrush current peak	
• at 24 V	1.7 A
duration of inrush current peak	
• at 24 V	7.5 ms

Approvals Certificates		
General Product Approval	EMV	other



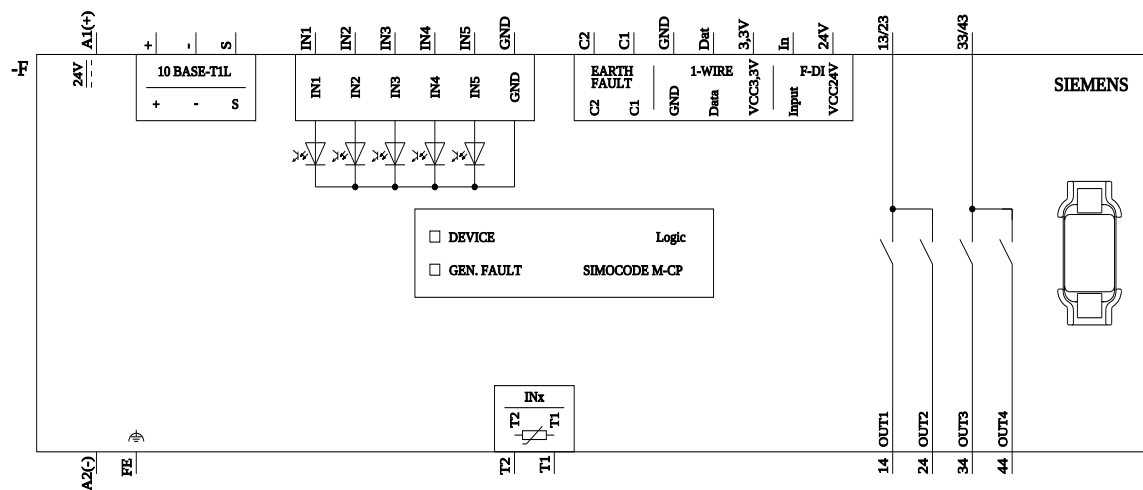
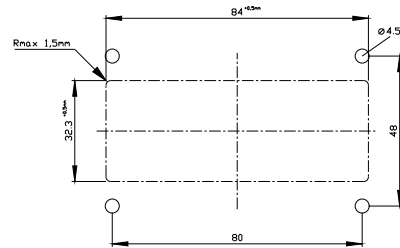
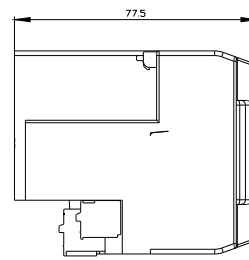
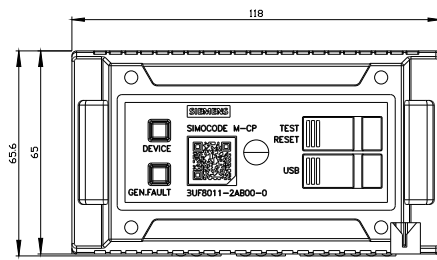
[KC](#)

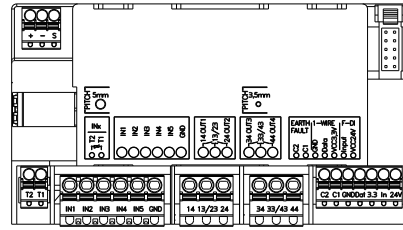
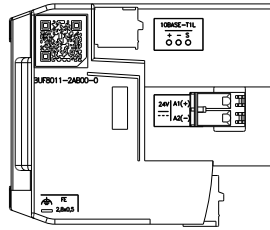
[Confirmation](#)



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=3UF8011-2AB00-0 Cax online generator https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UF8011-2AB00-0 Service&Support (Manuals, Certificates, Characteristics, FAQs,...) https://support.industry.siemens.com/cs/ww/en/ps/3UF8011-2AB00-0 Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...) https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UF8011-2AB00-0&lang=en





last modified:

12/16/2025