



Current/voltage measuring module V2; Set current 10...115 A, Voltage measurement up to 690 V, Overall width 55 mm, Straight-through transformer, basic unit required pro V PB, pro V MR, pro V PN or pro V EIP

product brand name	SIMOCODE
product designation	Current/voltage measuring module
product type designation	IUM
General technical data	
measuring procedure	RMS value measurement
size of the circuit-breaker	S2, S3
product function	
• current measurement	Yes
• voltage measurement	Yes
• active power measurement	Yes
• energy measurement	Yes
• frequency measurement	Yes
measuring procedure for current measurement	TRMS
current measuring range extension with external current transformers	No
measuring procedure for voltage measurement	TRMS
measurable supply voltage between the line conductors at AC maximum rated value	690 V
product component	
• input for thermistor connection	No
consumed active power	0.5 W
insulation voltage	
• with degree of pollution 3 at AC rated value	690 V
• for wires of main circuit according to IEC 60947-1 rated value	6 kV
surge voltage resistance rated value	6 000 V
shock resistance according to IEC 60068-2-27	15 g / 11 ms; with basic unit snapped on
vibration resistance	1 ... 6 Hz / 15 mm; 6 ... 500 Hz / 2 g; with basic unit snapped on: 1 g
reference code according to IEC 81346-2	F
Substance Prohibitance (day/month/year)	05/28/2009
SVHC substance name	Lead CAS-No. 7439-92-1 Lead monoxide (lead oxide) CAS-No. 1317-36-8 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one CAS-No. 71868-10-5 Melamine CAS-No. 108-78-1
Net Weight	342 g
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

• due to conductor-earth surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5	2 kV 1 kV
field-based interference according to IEC 61000-4-3	10 V/m
Inputs/ Outputs	
number of outputs as contact-affected switching element	0
Protective and monitoring functions	
product function	
• power factor monitoring • ground-fault monitoring • voltage detection	Yes Yes Yes
trip class	CLASS 5E, 7E, 10E, 15E, 20E, 25E, 30E, 35E and 40E adjustable
product function	
• current detection • overload protection	Yes Yes
Precision	
measuring precision	
• of frequency measurement • for current measurement 1 • for current measurement 2 • for voltage measurement 1 • at cos phi-measurement 1 • at cos phi-measurement 2 • for active power measurement 1 • for active power measurement 2 • for energy measurement 1 • for energy measurement 2 • for apparent power measurement 1 • for apparent power measurement 2	+/- 1.5 %, 7.5 A ... 230 A, 0.85 x 110 V ... 1.1 x 690 V (line-to-line voltages), cos phi (0.5...1), 50/60 Hz, 25 °C +/- 1.5 %, in range 7.5 A ... 230 A, in range 0.85 x 110 V ... 1.1 x 690 V (line-to-line voltages), 50/60 Hz, 25 °C +/- 3%, in range 230 A ... 920 A, in range 0.85 x 110 V ... 1.1 x 690 V (line-to-line voltages), 50/60 Hz, 25 °C +/- 1.5 %, in range 0.85 x 110 V ... 1.1 x 690 V (line-to-line voltages), 50/60 Hz, 25 °C +/- 1.5 %, 7.5 A ... 230 A, 0.85 x 110 V ... 1.1 x 690 V (line-to-line voltages), cos phi (0.5...1), 50/60 Hz, 25 °C +/- 5%, 230 A ... 920 A, 0.85 x 110 V ... 1.1 x 690 V (line-to-line voltages), cos phi (0.5...1), 50/60 Hz, 25 °C +/- 5%, 7.5 A ... 230 A, 0.85 x 110 V ... 1.1 x 690 V (line-to-line voltages), cos phi (0.5...1), 50/60 Hz, 25 °C +/- 10%, 230 A ... 920 A, 0.85 x 110 V ... 1.1 x 690 V (line-to-line voltages), cos phi (0.5...1), 50/60 Hz, 25 °C +/- 5%, 7.5 A ... 230 A, 0.85 x 110 V ... 1.1 x 690 V (line-to-line voltages), cos phi (0.5...1), 50/60 Hz, 25 °C +/- 10%, 230 A ... 920 A, 0.85 x 110 V ... 1.1 x 690 V (line-to-line voltages), cos phi (0.5...1), 50/60 Hz, 25 °C +/- 3%, 7.5 A ... 230 A, 0.85 x 110 V ... 1.1 x 690 V (line-to-line voltages), cos phi (0.5...1), 50/60 Hz, 25 °C +/- 5 %, 230 A ... 920 A, 0.85 x 110 V ... 1.1 x 690 V (line-to-line voltages), cos phi (0.5...1), 50/60 Hz, 25 °C
accuracy of ground-fault monitoring	In the range 30 % .. 120 %/Is: +/- 10 % (Class CI-A), in range 15 % .. 30 % le: +/- 25 % (Class CI-B), both values acc. to IEC 60947-1 Annex T
temperature drift per °C	0.01 %/°C; Reference temperature: 25°C
measured variable frequency	45 ... 65 Hz
Installation/ mounting/ dimensions	
mounting position	any
fastening method	screw and snap-on mounting
height	94 mm
width	55 mm
depth	91 mm
required spacing	
• top • bottom • left • right	30 mm 30 mm 0 mm 0 mm
diameter of inlet opening	14 mm
diameter of inlet opening for current measurement	14 mm
Connections/ Terminals	
type of electrical connection	
• for main current circuit • for auxiliary and control circuit	straight-through transformers screw-type terminals
type of electrical connection at the measurement inputs for	screw-type terminals

voltage	
type of connectable conductor cross-sections at the measurement inputs for voltage	
- finely stranded with core end processing - solid - for AWG cables solid - for AWG cables stranded	1x (0.25 ... 2.5 mm ²), 2x (0.25 ... 1.0 mm ²) 1x (0.25 ... 2.5 mm ²), 2x (0.25 ... 1.0 mm ²) 1x (24 ... 14), 2x (24 ... 18) 1x (20 ... 14), 2x (20 ... 16)
tightening torque at the measurement inputs for voltage	0.5 ... 0.6 N·m
tightening torque [lbf·in] at the measurement inputs for voltage	4.4 ... 5.3 lbf·in
test voltage for isolation test note	For insulation tests, it is recommended to disconnect the voltage terminals; this is mandatory for DC test voltages.
Ambient conditions	
installation altitude at height above sea level	
1 maximum 2 maximum 3 maximum	2 000 m 3 000 m; max. +50 °C (no protective separation) 4 000 m; max. +40 °C (no protective separation)
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	3K6 (no formation of ice, no condensation, relative humidity 10 ... 95%), 3C3 (no salt mist), 3S2 (sand must not get into the devices), 3M6 1K6 (no condensation, relative humidity 10 ... 95%), 1C2 (no salt mist), 1S2 (sand must not get into the devices), 1M4 2K2, 2C1, 2S1, 2M2
relative humidity during operation	10 ... 95 %
Short-circuit protection	
product function short circuit protection	No
IEC 61508	
Safety Integrity Level (SIL) according to IEC 61508	1
ATEX	
certificate of suitability	
- according to ATEX directive 2014/34/EU - according to UKCA	BVS 06 ATEX F001 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)
Main circuit	
number of poles for main current circuit	3
adjustable current response value current of the current-dependent overload release	10 ... 115 A
operating voltage	
- at AC — at 50 Hz rated value — at 60 Hz rated value	110 ... 690 V 110 ... 690 V
operating frequency rated value	50 ... 60 Hz
Control circuit/ Control	
type of voltage	AC
inrush current maximum	1 150 A; 10 x I _o
Approvals Certificates	
Environment	General Product Approval

[Environmental Conformations](#)



General Product Approval		EMV		For use in hazardous locations	
 EG-Konf.			 RCM	 IECEx	 ATEX
For use in hazardous locations			Test Certificates		
 ATEX	 IECEx	Miscellaneous	Special Test Certificate	Type Test Certificates/Test Report	Special Test Certificate
Maritime application			other		
 ABS	 DNV	 LRS	 RMRS	Confirmation	Confirmation
other	Industrial Communication				
	 Profibus				

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=3UF7112-1AA01-0>

Cax online generator

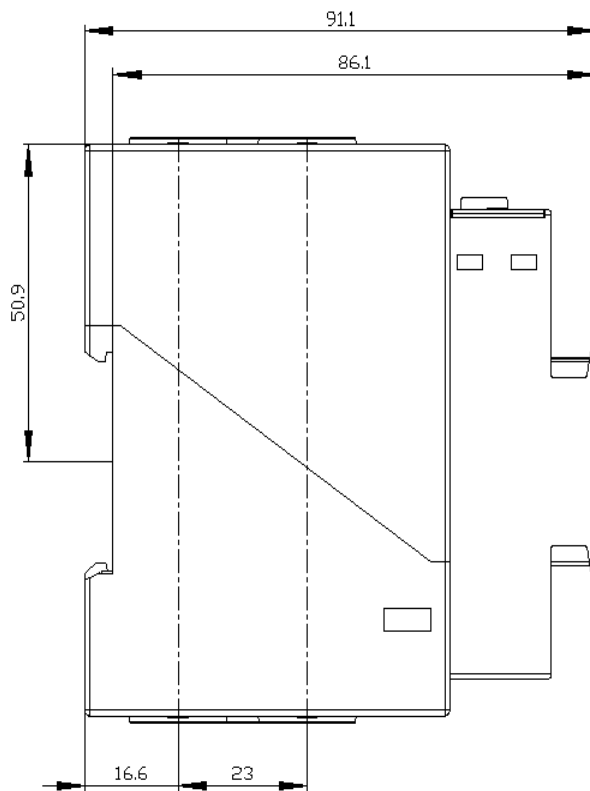
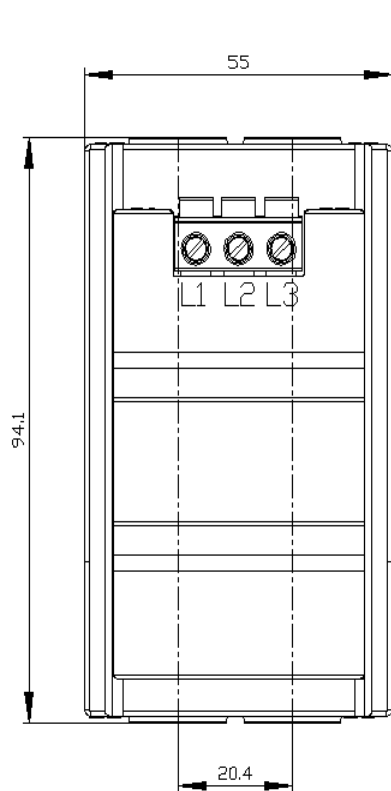
<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UF7112-1AA01-0>

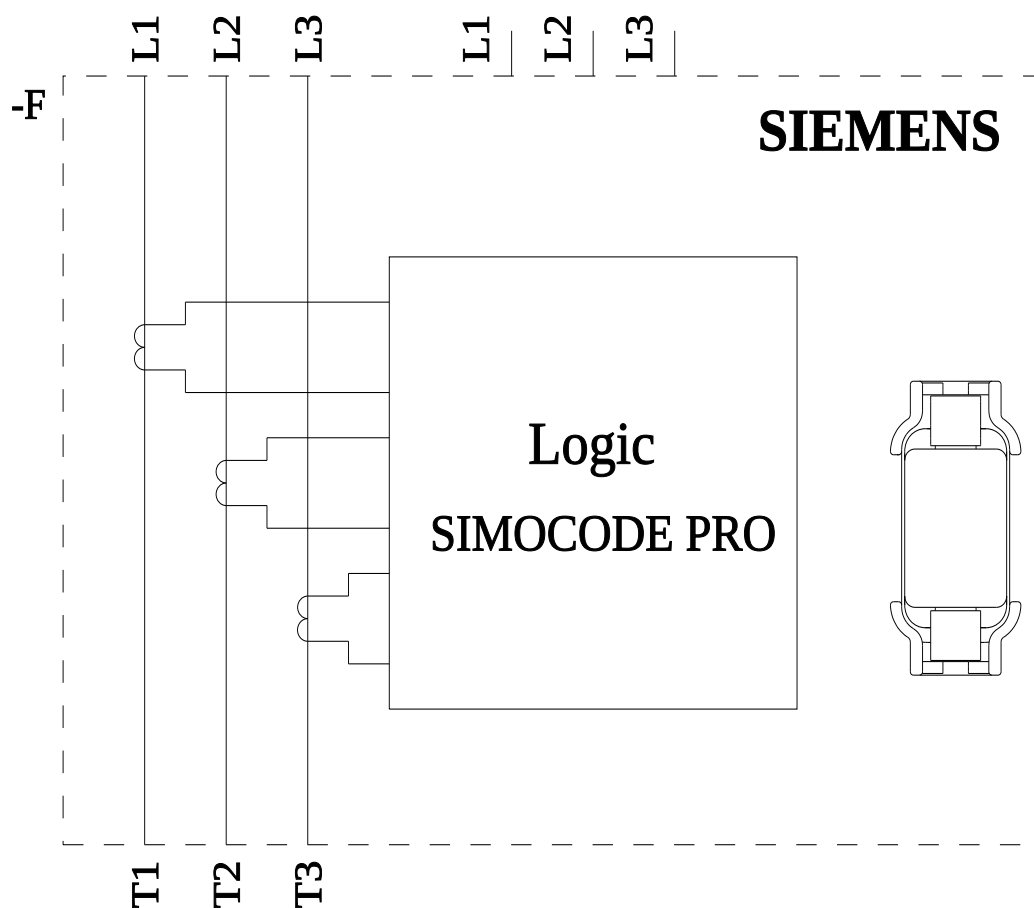
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3UF7112-1AA01-0>

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

https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UF7112-1AA01-0&lang=en





last modified:

7/24/2026 