

Current/voltage measuring module V2; Set current 20...200 A, Voltage measurement up to 690 V, Overall width 120 mm, Busbar connection basic unit required pro V PB, pro V MR, pro V PN or pro V EIP



<b>product brand name</b>	SIRIUS
<b>product designation</b>	Current/voltage measuring module
<b>General technical data</b>	
<b>product function</b>	
• current measurement	Yes
• voltage measurement	Yes
• active power measurement	Yes
• energy measurement	Yes
• frequency measurement	Yes
<b>measuring procedure for current measurement</b>	TRMS
<b>current measuring range extension with external current transformers</b>	No
<b>measuring procedure for voltage measurement</b>	TRMS
<b>measurable supply voltage between the line conductors at AC maximum rated value</b>	690 V
<b>line conductors and neutral conductors internal resistance for voltage measurement</b>	1 MΩ; RC-based voltage divider
<b>product component</b>	
• input for thermistor connection	No
<b>consumed active power</b>	0.5 W
<b>insulation voltage</b>	
• 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
<b>surge voltage resistance rated value</b>	6 000 V
<b>protection class IP</b>	IP00
<b>shock resistance according to IEC 60068-2-27</b>	15g / 11 ms; with basic unit snapped on
<b>reference code according to IEC 81346-2</b>	F
<b>Substance Prohibitance (Date)</b>	05/28/2009
<b>SVHC substance name</b>	Blei - 7439-92-1 Bleimonoxid (Bleioxid) - 1317-36-8
<b>certificate of suitability</b>	
• according to ATEX directive 2014/34/EU	BVS 06 ATEX F001
• according to UKCA	ITS21UKEX0464
<b>explosion device group and category according to ATEX directive 2014/34/EU</b>	II (2) G, II (2) D, I (M2)
<b>Electromagnetic compatibility</b>	
<b>EMC emitted interference according to IEC 60947-1</b>	class A
<b>EMC immunity according to IEC 60947-1</b>	corresponds to degree of severity 3
<b>conducted interference</b>	
• due to burst according to IEC 61000-4-4	2 kV
• due to conductor-earth surge according to IEC 61000-4-5	2 kV

<ul style="list-style-type: none"> <li>• due to conductor-conductor surge according to IEC 61000-4-5</li> </ul>	1 kV
<b>field-based interference according to IEC 61000-4-3</b>	10 V/m
<b>Inputs/ Outputs</b>	
<b>number of outputs as contact-affected switching element</b>	0
<b>Protective and monitoring functions</b>	
<b>product function</b>	
<ul style="list-style-type: none"> <li>• power factor monitoring</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• ground-fault monitoring</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• voltage detection</li> </ul>	Yes
<b>trip class</b>	CLASS 5E
<b>product function</b>	
<ul style="list-style-type: none"> <li>• current detection</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• overload protection</li> </ul>	Yes
<b>Precision</b>	
<b>measuring precision</b>	
<ul style="list-style-type: none"> <li>• of frequency measurement</li> </ul>	+/- 1,5 %, 15 A ... 1600 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
<ul style="list-style-type: none"> <li>• for current measurement 1</li> </ul>	+/- 1.5 %, in range 15 A ... 400 A, in range 0.85 x 110 V ... 1.1 x 690 V (line-to-line voltages), 50/60 Hz, 25 °C
<ul style="list-style-type: none"> <li>• for current measurement 2</li> </ul>	+/- 5%, in range 400 A ... 1600 A, in range 0.85 x 110 V ... 1.1 x 690 V (line-to-line voltages), 50/60 Hz, 25 °C
<ul style="list-style-type: none"> <li>• for voltage measurement 1</li> </ul>	+/- 1.5 %, in range 0.85 x 110 V ... 1.1 x 690 V (line-to-line voltages), 50/60 Hz, 25 °C
<ul style="list-style-type: none"> <li>• at cos phi-measurement 1</li> </ul>	+/- 1.5 %, 15 A ... 400 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
<ul style="list-style-type: none"> <li>• at cos phi-measurement 2</li> </ul>	+/- 5%, 400 A ... 1600 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
<ul style="list-style-type: none"> <li>• at active power measurement 1</li> </ul>	+/- 5%, 15 A ... 400 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
<ul style="list-style-type: none"> <li>• at active power measurement 2</li> </ul>	+/- 10%, 400 A ... 1600 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
<ul style="list-style-type: none"> <li>• at energy measurement 1</li> </ul>	+/- 5 %, 47 ... 1260 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
<ul style="list-style-type: none"> <li>• at energy measurement 2</li> </ul>	+/- 10%, 400 A ... 1600 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
<ul style="list-style-type: none"> <li>• at apparent power measurement 1</li> </ul>	+/- 3%, 15 A ... 400 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
<ul style="list-style-type: none"> <li>• at apparent power measurement 2</li> </ul>	+/- 5 %, 400 A ... 1600 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
<b>accuracy of ground-fault monitoring</b>	In the range 30 % .. 120 %/Is: +/- 10 % (Class CI-A), in range 15 % .. 30 % Ie: +/- 25 % (Class CI-B), both values acc. to IEC 60947-1 Annex T
<b>temperature drift per °C</b>	0.01 %/°C; Reference temperature: 25°C
<b>measured variable frequency</b>	45 ... 65 Hz
<b>Installation/ mounting/ dimensions</b>	
<b>mounting position</b>	any
<b>fastening method</b>	direct mounting / stand-alone installation
<b>height</b>	119 mm
<b>width</b>	120 mm
<b>depth</b>	145 mm
<b>required spacing</b>	
<ul style="list-style-type: none"> <li>• top</li> </ul>	30 mm
<ul style="list-style-type: none"> <li>• bottom</li> </ul>	30 mm
<ul style="list-style-type: none"> <li>• left</li> </ul>	0 mm
<ul style="list-style-type: none"> <li>• right</li> </ul>	0 mm
<b>Connections/ Terminals</b>	
<b>type of electrical connection at the measurement inputs for voltage</b>	screw-type terminals
<b>type of connectable conductor cross-sections at the measurement inputs for voltage</b>	
<ul style="list-style-type: none"> <li>• finely stranded with core end processing</li> </ul>	1x (0.5 ... 2.5 mm <sup>2</sup> ), 2x (0.5 ... 1.5 mm <sup>2</sup> )
<ul style="list-style-type: none"> <li>• solid</li> </ul>	1x (0.5 ... 4 mm <sup>2</sup> ), 2x (0.5 ... 2.5 mm <sup>2</sup> )
<ul style="list-style-type: none"> <li>• for AWG cables solid</li> </ul>	1x (20 ... 12), 2x (20 ... 14)
<ul style="list-style-type: none"> <li>• for AWG cables stranded</li> </ul>	1x (20 ... 14), 2x (20 ... 16)
<b>tightening torque at the measurement inputs for voltage</b>	0.8 ... 1.2 N·m

<b>tightening torque [lbf-in] at the measurement inputs for voltage</b>	7 ... 10.3 lbf-in
<b>type of connectable conductor cross-sections at the measurement inputs for current</b>	16 mm <sup>2</sup> ... 95 mm <sup>2</sup> 25 mm <sup>2</sup> ... 120 mm <sup>2</sup> 4/0 kcmil ... 250 kcmil
<ul style="list-style-type: none"> <li>• solid with core end processing</li> <li>• stranded with core end processing</li> <li>• for AWG cables</li> </ul>	
<b>design of the thread of the connection screw at the measurement inputs for current</b>	M8 x 25

### Ambient conditions

<b>installation altitude at height above sea level</b>	2 000 m 3 000 m; max. +50 °C (no protective separation) 4 000 m; max. +40 °C (no protective separation)
<ul style="list-style-type: none"> <li>• 1 maximum</li> <li>• 2 maximum</li> <li>• 3 maximum</li> </ul>	
<b>ambient temperature</b>	-25 ... +60 °C -40 ... +80 °C -40 ... +80 °C
<ul style="list-style-type: none"> <li>• during operation</li> <li>• during storage</li> <li>• during transport</li> </ul>	
<b>environmental category</b>	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
<ul style="list-style-type: none"> <li>• during operation according to IEC 60721</li> <li>• during storage according to IEC 60721</li> <li>• during transport according to IEC 60721</li> </ul>	
relative humidity during operation	10 ... 95 %

### Short-circuit protection

<b>product function short circuit protection</b>	No
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### Galvanic isolation

<b>(electrically) protective separation according to IEC 60947-1</b>	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)
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### Main circuit

<b>number of poles for main current circuit</b>	3
<b>adjustable current response value current of the current-dependent overload release</b>	20 ... 200 A
<b>operating voltage</b>	110 ... 690 V 110 ... 690 V
<ul style="list-style-type: none"> <li>• at AC <ul style="list-style-type: none"> <li>— at 50 Hz rated value</li> <li>— at 60 Hz rated value</li> </ul> </li> </ul>	
<b>operating frequency rated value</b>	50 ... 60 Hz

### Control circuit/ Control

<b>type of voltage</b>	AC
<b>inrush current maximum</b>	2 000 A; 10 x I <sub>0</sub>

### Approvals Certificates

<b>General Product Approval</b>	<b>EMC</b>	<b>For use in hazardous locations</b>
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[Confirmation](#)



<b>For use in hazardous locations</b>	<b>Declaration of Conformity</b>
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[Explosion Protection Certificate](#)



<b>Test Certificates</b>	<b>Marine / Shipping</b>
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Marine / Shipping

other



[Confirmation](#)

[PROFINET-Certification](#)



### Further information

Siemens has decided to exit the Russian market (see here).

<https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business>

Siemens is working on the renewal of the current EAC certificates.

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

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=3UF7113-1BA01-0>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UF7113-1BA01-0>

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

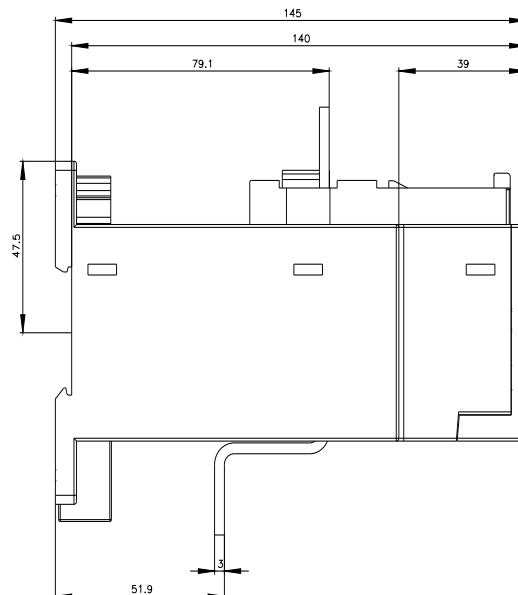
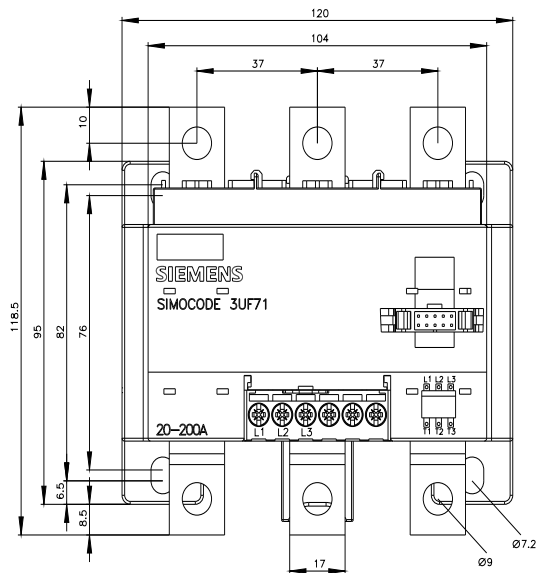
<https://support.industry.siemens.com/cs/ww/en/ps/3UF7113-1BA01-0>

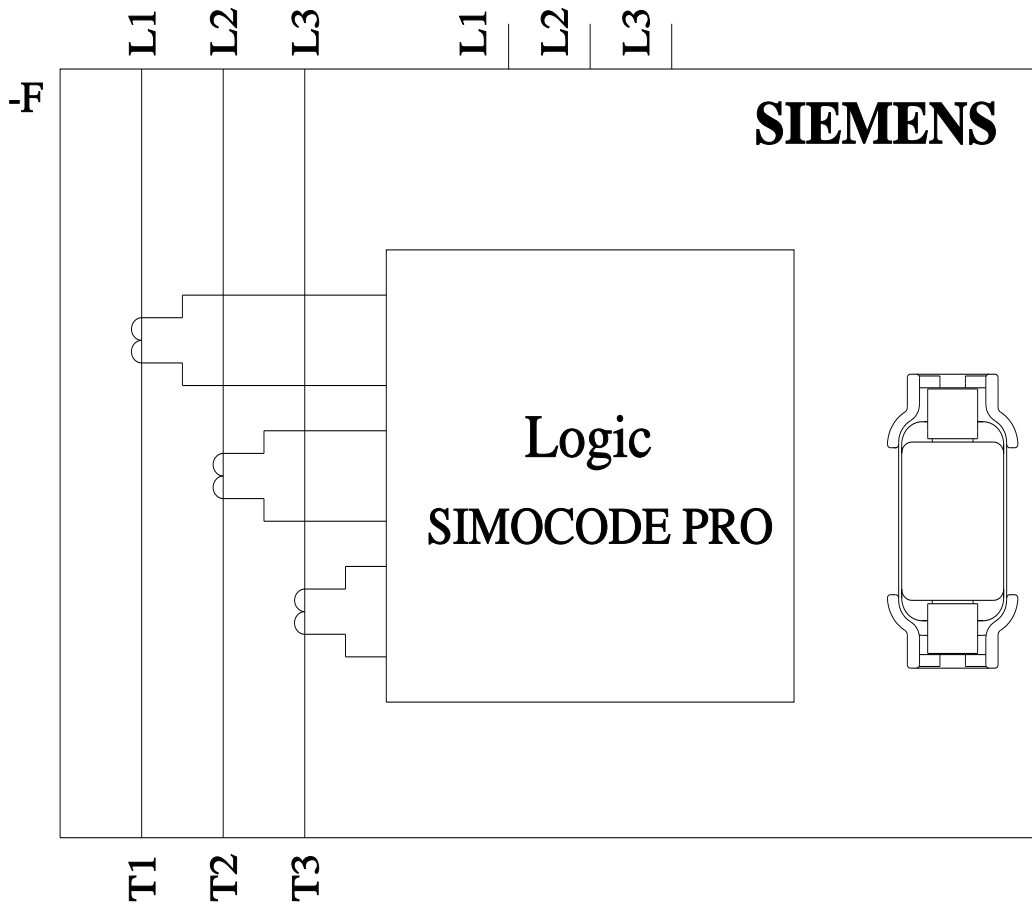
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3UF7113-1BA01-0&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UF7113-1BA01-0&lang=en)

Test report No. A0258, protective separation

<https://support.industry.siemens.com/cs/ww/en/view/109748152>





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