



Current/voltage measuring module V2; Set current 3...40 A, Voltage measurement up to 690 V, Overall width 45 mm, Straight-through transformer, basic unit required pro V PB, pro V MR, pro V PN or pro V EIP

product brand name	SIRIUS
product designation	Current/voltage measuring module
General technical data	
product function	
<ul style="list-style-type: none"> • current measurement • voltage measurement • active power measurement • power measurement • frequency measurement 	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>
measuring procedure for current measurement	TRMS
current measuring range extension with external current transformers	Yes
measuring procedure for voltage measurement	TRMS
measurable supply voltage between the line conductors at AC maximum rated value	690 V
line conductors and neutral conductors internal resistance for voltage measurement	1 MΩ; RC-based voltage divider
product component	
<ul style="list-style-type: none"> • input for thermistor connection 	No
consumed active power	0.5 W
insulation voltage	
<ul style="list-style-type: none"> • with degree of pollution 3 at AC rated value • for wires of main circuit according to IEC 60947-1 rated value 	<p>690 V</p> <p>6 kV</p>
surge voltage resistance rated value	6 000 V
protection class IP	IP20
shock resistance according to IEC 60068-2-27	15g / 11 ms; with basic unit snapped on
vibration resistance	1-6 Hz / 15 mm; 6-500 Hz / 2 g; with basic unit snapped on: 1g
reference code according to IEC 81346-2	F
Substance Prohibitance (Date)	05/28/2009
certificate of suitability	
<ul style="list-style-type: none"> • according to ATEX directive 2014/34/EU • according to UKCA 	<p>BVS 06 ATEX F001</p> <p>ITS21UKEX0464</p>
explosion device group and category according to ATEX directive 2014/34/EU	II (2) G, II (2) D, I (M2)
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	
<ul style="list-style-type: none"> • 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 	<p>2 kV</p> <p>2 kV</p> <p>1 kV</p>

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

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
- at active power measurement 1
- at active power measurement 2
- at energy measurement 1
- at energy measurement 2
- at apparent power measurement 1
- at apparent power measurement 2

+/- 1.5 %, 2.25 A ... 80 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 2.25 A ... 80 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 80 A ... 320 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%, 80 A ... 320 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%, 80 A ... 320 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%, 2.25 A ... 80 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%, 80 A ... 320 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%, 2.25 A ... 80 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 %, 80 A ... 320 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 % Ie: +/- 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

84 mm

width

45 mm

depth

64 mm

required spacing

- top
- bottom
- left
- right

30 mm

30 mm

0 mm

0 mm

diameter of inlet opening

7.5 mm

diameter of inlet opening for current measurement

7.5 mm

Connections/ Terminals**type of electrical connection at the measurement inputs for voltage**

screw-type terminals

type of connectable conductor cross-sections at the measurement inputs for voltage

- finely stranded with core end processing
- solid
- at AWG cables solid
- at AWG cables stranded

1x (0.25 ... 2.5 mm²), 2x (0.25 ... 1.0 mm²)1x (0.25 ... 2.5 mm²), 2x (0.25 ... 1.0 mm²)

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

Ambient conditions

installation altitude at height above sea level <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • during operation • during storage • during transport 	-25 ... +60 °C -40 ... +80 °C -40 ... +80 °C
environmental category <ul style="list-style-type: none"> • during operation according to IEC 60721 • during storage according to IEC 60721 • during transport according to IEC 60721 relative humidity during operation	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 10 ... 95 %

Short-circuit protection

product function short circuit protection	No
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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)
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Main circuit

number of poles for main current circuit	3
adjustable current response value current of the current-dependent overload release	3 ... 40 A
operating voltage <ul style="list-style-type: none"> • at AC <ul style="list-style-type: none"> — 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	400 A; 10 x I _o

Certificates/ approvals

General Product Approval	EMC
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[Confirmation](#)



For use in hazardous locations	Declaration of Conformity
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Test Certificates	Marine / Shipping
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[Type Test Certificates/Test Report](#)

[Special Test Certificate](#)

[Special Test Certificate](#)





[Confirmation](#)



[PROFINET-Certification](#)

Further information

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?mfb=3UF7111-1AA01-0>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mfb=3UF7111-1AA01-0>

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

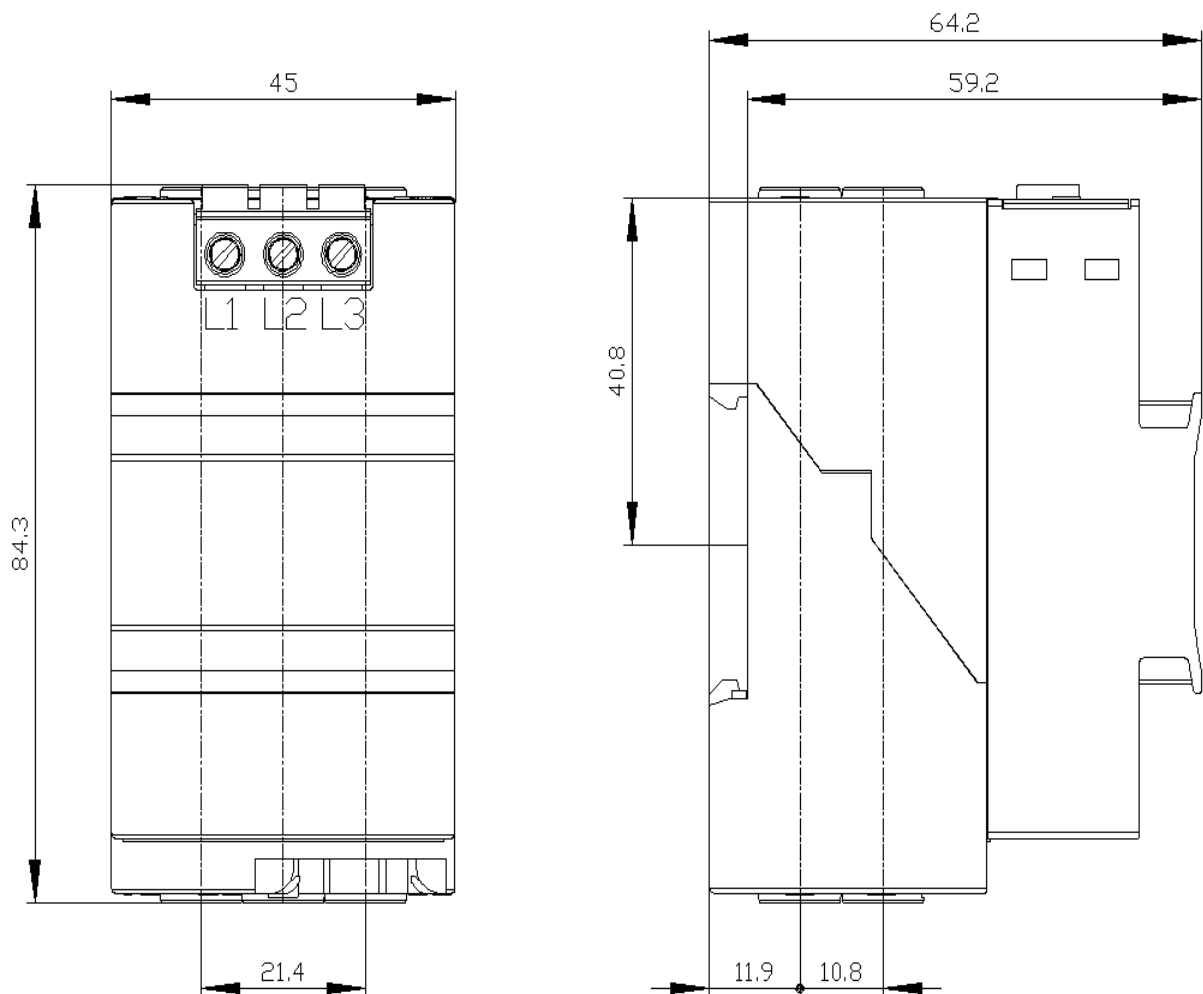
<https://support.industry.siemens.com/cs/ww/en/ps/3UF7111-1AA01-0>

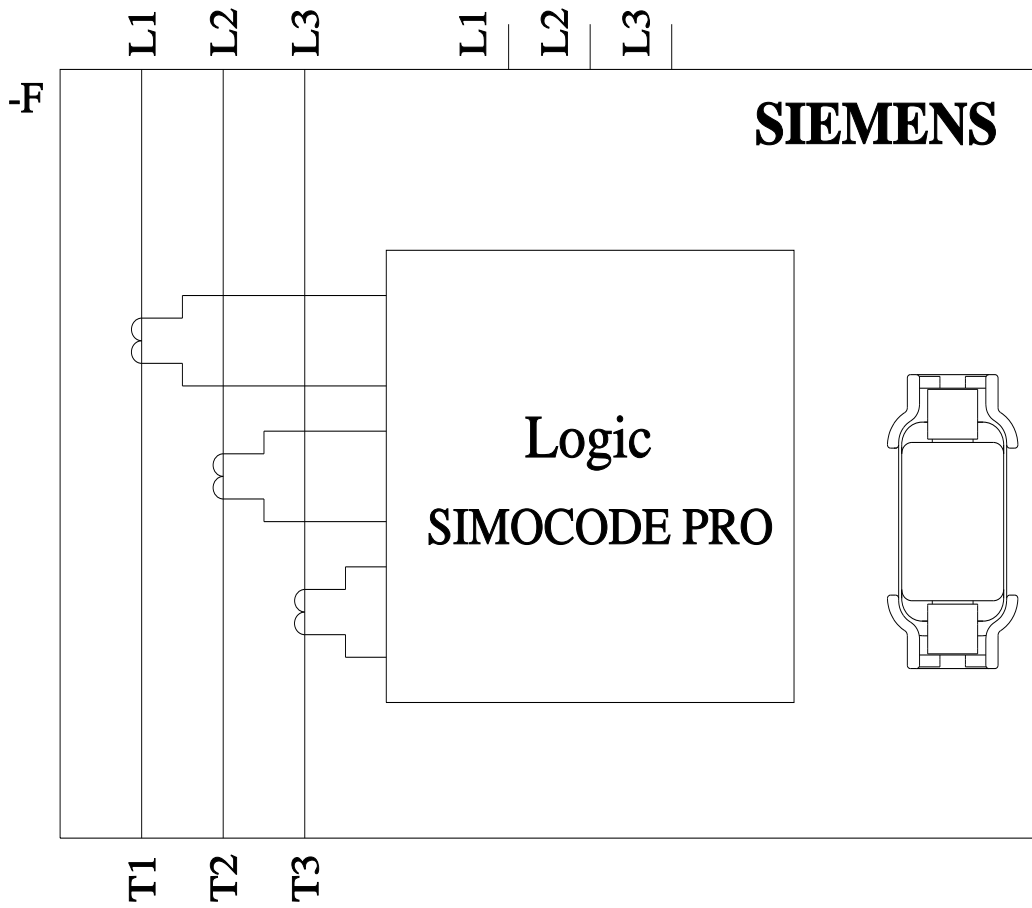
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

http://www.automation.siemens.com/bilddb/cax_de.aspx?mfb=3UF7111-1AA01-0&lang=en

Test report No. A0258, protective separation

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





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