SIEMENS

Data sheet 3UF7114-1BA00-0

Current/voltage measuring module Set current 63...630 A voltage measurement up to 690 V, Overall width 145 mm, busbar connection

product brand name	SIRIUS
product designation	Current/voltage measuring module
General technical data	
product function	
● current measurement	Yes
● voltage measurement	Yes
● active power measurement	Yes
● power measurement	Yes
● frequency measurement	No
current measuring range extension with external current transformers	No
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; R-based voltage divider
product component	
● input for thermistor connection	No
insulation voltage	
● with degree of pollution 3 at AC rated value	690 V
● for wires of main circuit acc. to IEC 60947-1 rated value	6 kV
surge voltage resistance rated value	8 000 V
protection class IP	IP00
shock resistance acc. to IEC 60068-2-27	15g / 11 ms
vibration resistance	1-6 Hz / 15 mm; 6-500 Hz / 2 g
reference code acc. to IEC 81346-2	F
Substance Prohibitance (Date)	28.05.2009
certificate of suitability	
● according to ATEX directive 2014/34/EU	BVS 06 ATEX F001
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 acc. to IEC 60947-1	class A
EMC immunity acc. to IEC 60947-1	corresponds to degree of severity 3
conducted interference	
● due to burst acc. to IEC 61000-4-4	2 kV
● due to conductor-earth surge acc. to IEC 61000-4-5	2 kV
● due to conductor-conductor surge acc. to IEC 61000-4-5	1 kV
field-based interference acc. 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	Yes
● ground-fault monitoring	No
● voltage detection	Yes
product function	
● current detection	Yes
● overload protection	Yes
Installation/ mounting/ dimensions	
mounting position	any
fastening method	direct mounting / stand-alone installation
height	147 mm
width	145 mm
depth	149 mm
required spacing	
● top	30 mm
● bottom	30 mm
● left	0 mm
● right	0 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	1x (0.5 ... 2.5 mm²), 2x (0.5 ... 1.5 mm²)
● solid	1x (0.5 ... 4 mm²), 2x (0.5 ... 2.5 mm²)
● at AWG cables solid	1x (20 ... 14), 2x (20 ... 14)
● at AWG cables stranded	1x (20 ... 14), 2x (20 ... 16)
tightening torque at the measurement inputs for voltage	0.8 ... 1.2 N·m
tightening torque [lbf·in] at the measurement inputs for voltage	7 ... 10.3 lbf·in
type of connectable conductor cross-sections at the measurement inputs for current	
● solid with core end processing	50 mm² ... 240 mm²
● stranded with core end processing	70 mm² ... 240 mm²
● at AWG cables	6 kcmil ... 300 kcmil
design of the thread of the connection screw at the measurement inputs for current	M8 x 25
Ambient conditions	
installation altitude at height above sea level	
● 1 maximum	2 000 m
● 2 maximum	3 000 m; max. +50 °C (no protective separation)
● 3 maximum	4 000 m; max. +40 °C (no protective separation)
ambient temperature	
● during operation	-25 ... +60 °C
● during storage	-40 ... +80 °C
● during transport	-40 ... +80 °C
environmental category	
● during operation acc. 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
● during storage acc. to IEC 60721	1K6 (no condensation, relative humidity 10 ... 95%), 1C2 (no salt mist), 1S2 (sand must not get into the devices), 1M4
● during transport acc. to IEC 60721	2K2, 2C1, 2S1, 2M2
relative humidity during operation	5 ... 95 %
Short-circuit protection	
product function short circuit protection	No
Main circuit	
number of poles for main current circuit	3

adjustable current response value current of the current-dependent overload release	63 ... 630 A
operating voltage	
● at AC	
— at 50 Hz rated value	110 ... 690 V
— at 60 Hz rated value	110 ... 690 V
operating frequency rated value	50 ... 60 Hz

Control circuit/ Control

type of voltage	AC

Certificates/ approvals

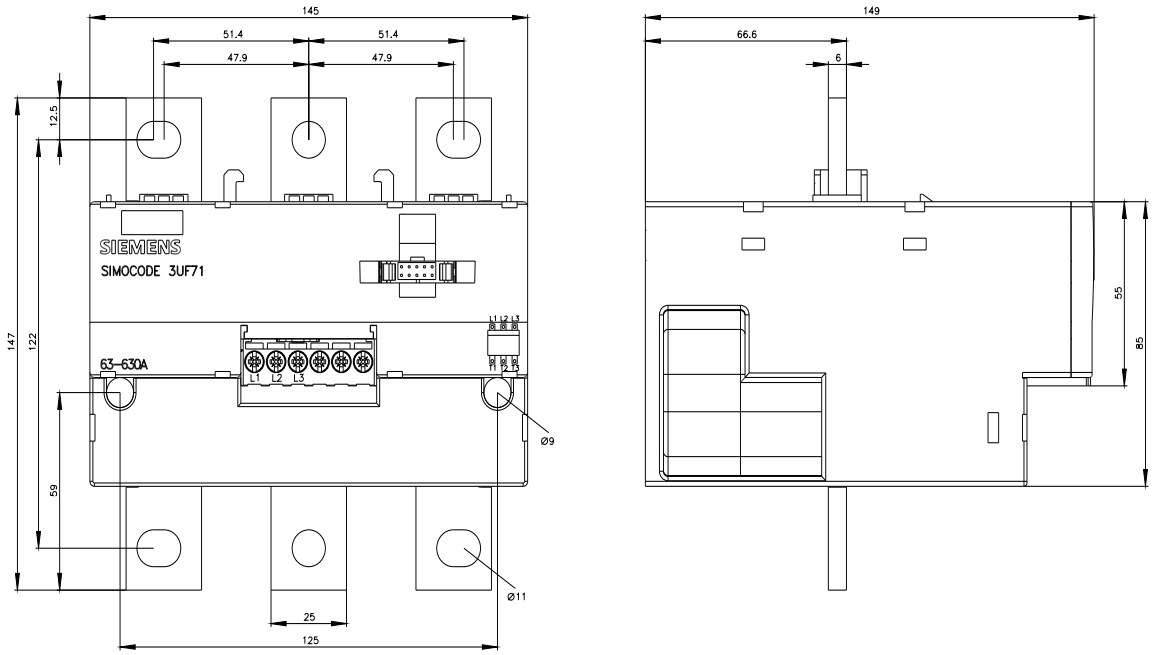
General Product Approval				EMC	For use in hazardous locations
CSA	CCC	UL	EAC	RCM	IECEx

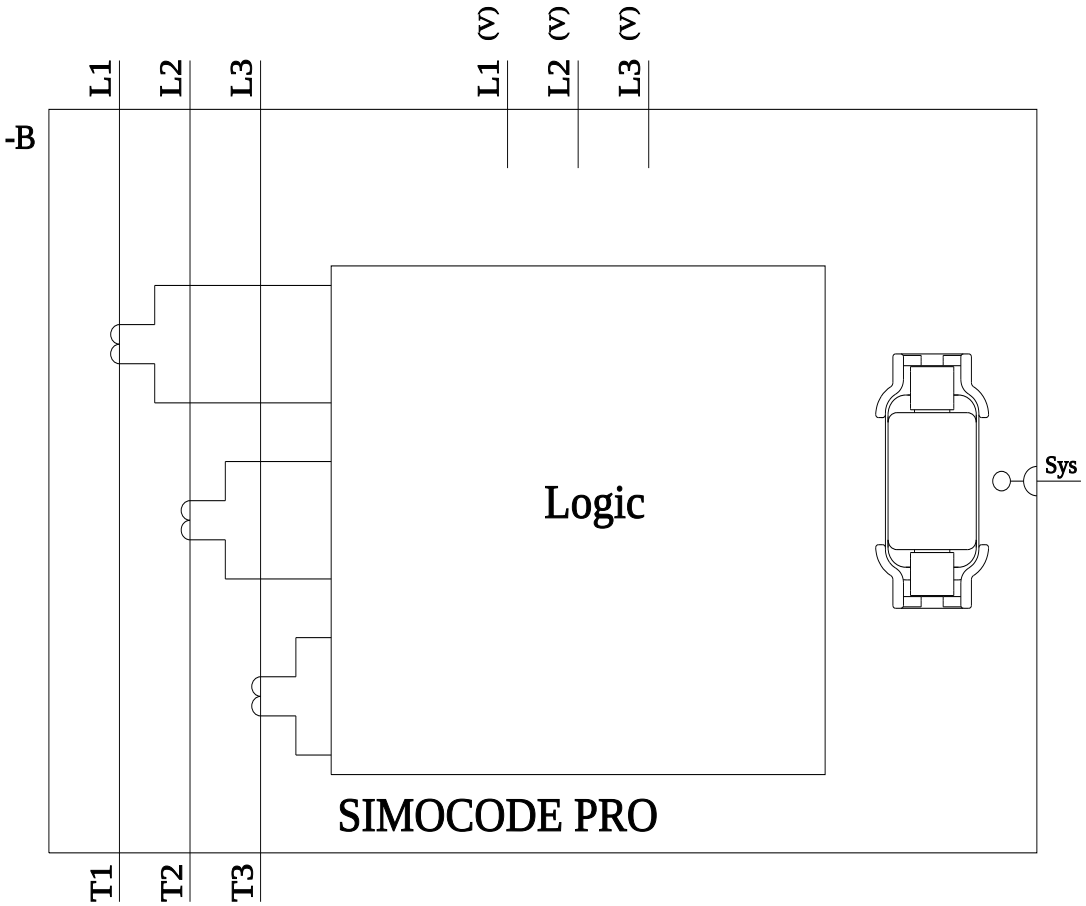
For use in hazardous locations	Declaration of Conformity	Test Certificates			Marine / Shipping
ATEX	EG-Konf.	Type Test Certificates/Test Report	Special Test Certificate	Special Test Certificate	ABS

Marine / Shipping			other		
LRS	RMRS	DNV·GL	Confirmation	PROFINET-Certification	Profibus

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?mlfb=3UF7114-1BA00-0
Cax online generator
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UF7114-1BA00-0
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
https://support.industry.siemens.com/cs/ww/en/ps/3UF7114-1BA00-0
Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UF7114-1BA00-0&lang=en
Test report No. A0258, protective separation
https://support.industry.siemens.com/cs/ww/en/view/109748152





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